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AN EXPERIMENTAL RE-STRUCTURING OF THE UNDERGRADUATE FOREIGN LANGUAGE CURRICULUM WITH SUPPORTING RESEARCH IN TEACHING TECHNIQUES.

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THE FRENCH AND SPANISH LANGUAGE PROGRAMS AT TULANE UNIVERSITY WERE REORGANIZED TO MAKE THE PROGRAMS MORE COMPATIBLE WITH THE NEEDS OF STUDENTS AND TO INTRODUCE INNOVATIVE AUDIOLINGUAL TEACHING TECHNIQUES. THE OBJECT WAS TO PREPARE STUDENTS, AFTER 2 YEARS OF INSTRUCTION, FOR SURVEY AND LITERATURE COURSES TAUGHT IN THE LANGUAGES. IN ADDITION, MONITORED AND UNMONITORED LANGUAGE LABORATORY SESSIONS WERE COMPARED. AFTER 5 YEARS OF STUDY, THE FOLLOWING CONCLUSIONS WERE REACHED--(1) TRADITIONAL LANGUAGE PROGRAMS CAN BE RESTRUCTURED EFFECTIVELY TO TAKE MAXIMUM ADVANTAGE OF A STRICTLY AUDIOLINGUAL SEQUENCE OF INSTRUCTION, (2) FOREIGN LANGUAGE MAJORS CAN BE TRAINED IN SUCH A RESTRUCTURED PROGRAM TO ACHIEVE AT LEAST MINIMAL RATINGS ON PROFICIENCY TESTS, (3) ACHIEVEMENT DIFFERENCES FAVOR MONITORED VERSUS UNMONITORED LABORATORY WORK, AND (4) THE RESTRUCTURED LANGUAGE PROGRAM (AS DESCRIBED HERE) IS READILY ADAPTABLE TO THE NORMAL COLLEGE SITUATION. (JH)

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U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

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Bureau of Research

AN EXPERIMENTAL RE-STRUCTURING OF THE UNDERGRADUATE FOREIGN LANGUAGE CURRICULUM WITH SUPPORTING RESEARCH IN TEACHING TECHNIQUES

Contract No. FY60-8941

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August 31, 1966

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Tulane University

New Orleans, Louisiana

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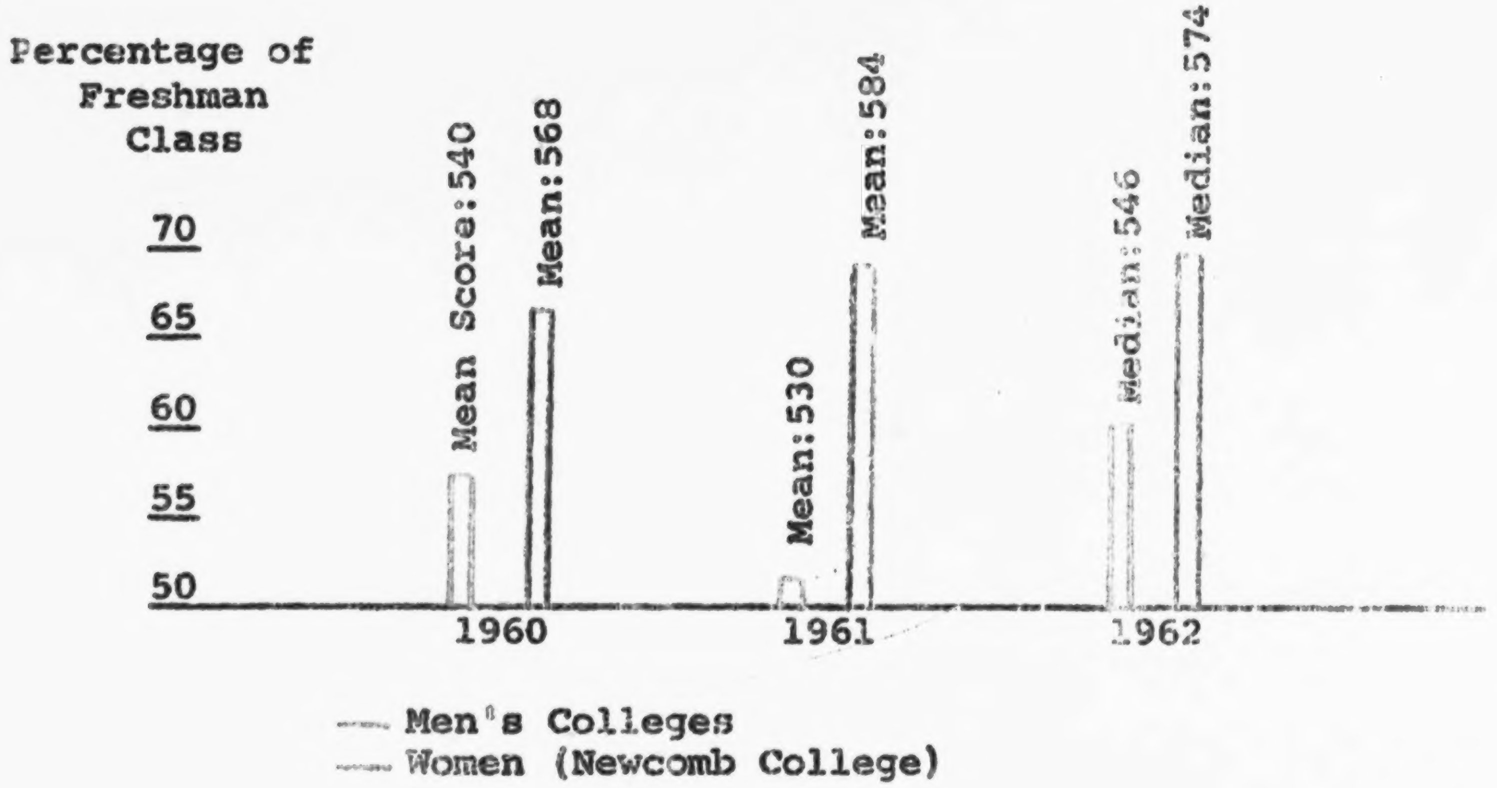
I. INTRODUCTION

A. Background

Tulane University, located in New Orleans, is a privately endowed university which was founded in 1834. It has about 5,000 full-time students each year and some 2,000 part-time students. There are ten separate colleges and schools, including two liberal arts colleges: the College of Arts and Sciences for men and Newcomb College for women. The latter two, with which we shall deal, are autonomous, each having its own faculty and curriculum. There is, however, much coordination between them, particularly in the upper level courses.

Tulane draws its students from all sections of the country but, as is natural, most of them come from its own region. There are some 2,500 students enrolled in the liberal arts colleges. The following diagram shows the SAT verbal scores of freshmen entering the University for the years 1960, 1961, and 1962.

Percent of Class with SAT Verbal 500-650



Quintile rank in high school class:

Arts and Sciences		Newcomb
1960	44% in first quintile	69% in first quintile
1961	47% in first quintile	70% in first quintile
1962	50% in first quintile	72% in first quintile

Both Colleges offer curricula leading to the Bachelor of Arts, Bachelor of Sciences, and Bachelor of Fine Arts degrees. There are different requirements for these degrees, but as far as languages are concerned the major difference is that Bachelor of Science Candidates in the College of Arts and Sciences must take language only through the intermediate level. For all other degrees the language requirement is an additional year: in Newcomb a Survey course of literature, in Arts and Sciences either the Survey course or an intensive grammar and conversation course. Both colleges recommend for admission three or four years of one language in high school rather than two-year sequences.

Because of improved language instruction in the high schools and because of increasingly competitive admission to Tulane we find that elementary language enrollment in French and Spanish is decreasing. More frequently the students go into "intermediate" courses in those languages, or are placed even higher by achievement tests administered in the fall to incoming freshmen.

Except for a few sporadic attempts at modernizing teaching methods in French and Spanish, the first two levels of language instruction as of 1960 were taught in a more or less traditional manner. The scarcity of commercial audio-lingual materials and the difficulity of developing our own prevented the realization of the laboratory potential. Until our experimentation began in 1960 the laboratory was used primarily to reinforce traditional classroom procedures, concentrating chiefly on pronunciation, developing comprehension, and ability to answer questions. Exceptions to this general approach were in one section of French which used the audio-lingual method exclusively, and another section of Spanish designed to prepare our students for their Junior year in Spain. The latter was a rigorous coordination of grammar review, cultural material, and audio-lingual work. These courses produced results which made us feel that our entire methodology should be revised.

In addition, the rising qualifications of new students brought in more who were fully capable as freshmen of going into courses above the "intermediate" level insofar as reading and writing abilities were concerned. However, since the upper level courses are taught in the language, such students were at a great disadvantage if they had not had audio-lingual training in high school.

The initiation of the Junior Year Abroad program in 1954, which allowed our own students to spend their third year in England, Italy, France, Spain, or Germany, meant that participants had to be equipped to perform well in their courses in the respective countries. It is an honors program and highly selective.

The problems confronting us were several:

1. The third level, or survey, course was difficult to justify as a liberal arts course unless it was taught in the language on the assumption of a high level of proficiency in all skills. If it were not so taught it was largely a skill course in language learning and translation and thus hardly humanistic. Our desire was to train the students to a [illegible] where they could take this terminal requirement course in the language and with greater sensitivity to the subtleties of the language without recourse to translation.

2. We asked ourselves if proper preparation, first in audio-lingual skill and later in reading and writing skills, could be accomplished in two years before the students entered the survey course. Or, would it require so much time that such skill courses, approached audio-lingually, would not fit into a college academic program of study.

The challenge was there - was it possible to use the audio-lingual technique and still meet all of the requirements of language learning and increase the humanistic value in the time allotted to the student?

B The Experiment

We were at this point in our thinking and self [illegible] when we entered into a contract with the federal government in 1960 for a three year experiment in reorganizing the four-year undergraduate curriculum in French and Spanish with supporting research in teaching techniques.

Our plan was to organize for students who began French or Spanish at Tulane courses in which the distinction between labs and classes would be minimal, in which the intensive emphasis would be placed on development of comprehension, speaking, reading, and writing skills presented in that order. The design was to have the students prepared in two years to go into survey and literature courses taught in the language. A further goal was that foreign language majors and foreign language teaching majors should achieve at least the minimal rating on appropriate parts of the MLA-Starr Proficiency Tests.

Another objective was to investigate the relative merit and usefulness of two types of class organization and instruction: 1) intensive, scheduled, monitored drill sessions in a language lab, and 2) intensive, partly scheduled, un-monitored practice. All other French and Spanish students of the first, second, and third year levels were to serve as controls against which to measure results of all experimentation.

C. Experimental Procedures Common to Both Languages throughout the Three-Year Period

1. Monitored vs. Un-monitored Work: In each September of

three years of the experiment (1960, 1961, 1962) we started two sections of elementary French and two of Spanish, all of which carried the course number 105-106 and gave eight semester hours credit. One section of each language, consistently designated with the additional number 61, met nine hours per week with one of a team of three instructors. The other section of each language, numbered 62, met four hours per week under a single instructor and had an additional requirement of five unsupervised hours of library-lab work. Every effort was made to keep all instructional circumstances identical between sections 61 and 62 in order to isolate and measure the effect of total supervision (section 61) versus partial supervision plus library-lab (section 62).

2. The Physical Facilities: All instruction and library-lab work in French and Spanish 105-106, 61 and 62, were performed in a 20-position laboratory-classroom. Although this room was designed for and used exclusively by the experimental sections, it included no feature that would be regarded as extraordinary in a well-equipped laboratory. Each student booth had record-playback and dual-channel capabilities and the instructor's console had the usual intercom and choice of live or recorded program. The large amount of recorded oral testing necessitated remote starting and stopping of student machines from the console.

Our purpose in using a laboratory room for all instruction was by no means to induce a pattern of "lab-teaching" at all times. It was rather to provide a fully-equipped teaching facility that would permit instant shifting from "classroom teaching" to "lab" without the complications of having to move physically from one room to another. In particular we wanted to avoid the time loss implicit in a specifically class or lab room where an instructor would feel obligated to fill out his 50 minutes in a single mode of teaching regardless of what might be best from the viewpoint of the teaching program. It was further hoped that the freedom to move from live to taped instruction would enable us, by continuing experimentation, to identify carefully phases of instruction most suitable for "class" or for "lab" treatment in later application of our findings when a lab-class facility for all instruction might not be economically possible.

The partitions between student positions and the booth fronts were designed to drop out of sight to make more complete the change from "lab" to "class". We soon found, however, that this feature disrupted rather than helped the transition, and the partitions generally remained in place whether the instructor was teaching "live", perhaps moving about the room, perhaps using his console microphone, or whether he was monitoring responses to recorded material.

The room was available for library-lab work twenty-three daytime hours and four evening hours per week during 1960-1961 to accommodate the students of the French and Spanish "62" section. In the two subsequent years the evening time was expanded as the population of the experiment increased.

3. The subjects for the beginning level of the experiment were selected each year from a list of freshmen entering both the men's and women's colleges who indicated a desire to participate. Their motivations varied widely from unhappy language history in high school to a keen desire to master a third language. The psychological consultant for the project laid out a selection procedure which produced a controlled random sample typical in admission qualifications of the entire freshman class of the year in question. No one was allowed to participate who had had previous experience in the language.

Each September we sought 20 students for each of the four beginning section, French and Spanish, 105-51 and 62. Scheduling problems and a few other limiting factors reduced the total with the following results to actual starting enrollment.[1]

---

[1] As Tulane-Newcomb Admissions became more selective each year, two effects have been noted in French and Spanish enrollment; the higher the quality of students the less likely they are to enter either language in the beginning level; secondly, the higher the quality the more pronounced the drop in all Spanish enrollment.

	1960	1961	1962
French 105-61	18	19	15
French 105-62	17	17	16
Spanish 105-61	13	14	8
Spanish 105-62	9	16	8

As these groups progressed from one year to the next attrition by failure in the language was negligible, but attrition due to other causes (most importantly probably the two-year language requirement for men in the B.S. program) caused considerable decline in numbers. This made it possible to combine the contrasted beginning sections of each language into a single group on the second level, which we designated French and Spanish 205-206. Thus, in 1961-62, the first year the second level was taught, 205-206 contained only second-year experimental subjects, no longer separated by the monitored-unmonitored distinction of their first year. When we reached 1962-1963 further attrition in the original groups led us to introduce in the upper levels of the experimentals (205-305) some students who had not started in the project sequence. Spanish 205 was augmented by including students whose elementary preparation in 1961-1962 had been modelled on the experimental pattern (See the description of Spanish 103-104 for 1961-62). In order to supplement the greatly reduced numbers in French and Spanish 305, the third year for the original subjects, we tested incoming students [illegible] and selected those whose language skill scores fell within the [illegible] established in May 1962 by the groups they would be joining. The following charts indicate the total population of the experiment, the attrition experienced, and the extent of late additions made to new groups.

French

Group started in Sept.	105		205	305
	Sec.61	Sec.62		
1960	18	17	26	16 (5 [illegible] 11 added)
1961	19	17	19 (18 + 1)	11 (9 + [illegible]
1962	15	16	19[1]	14

Spanish

Group started in Sept.	105		205	305
	Sec.61	Sec.62		
1960	13	9	15	[illegible]
1961	14	16	13 (19 + 12)[1]	17 [illegible]
1962	8	8	19	16

[1] taught in two sections

4. All phases of experimentation and research were directed jointly by W. S. Woods, who supervised the French, and [illegible] in charge of the Spanish. G. W. Wilkins, the applied linguist, worked on teaching and testing materials in both languages, and

E. Lee Hoffman was the psychological consultant who advised on selection methods, teaching, and testing procedures, the statistical evaluation of the results, and prepared the statistical portion of the reports. A full-time secretary maintained records, was in charge of the physical facilities for the experiment, and supervised the library-lab. The overall instructional staff requirements each year were eight section-equivalents at the 105 level,[2] two or three for 205 and two for 305. Three or more of those slots were filled each year by Professors Wood, Smither, and Wilkins.[3]

The point of departure for supervision and coordination was a weekly meeting attended by all members of the project teaching staff, including the supervisors and the applied linguist. At these meetings the discussions covered current progress and problems of instruction and agreement was reached on standard methods to be employed by all instructors. The work schedule for each instructional hour of the following week was planned in detail and decisions were made as to which exercises and drills were to be presented live and which supplied in tape form. Reggestions and decisions were also made from time to time on supplementary drill material to be written and recorded. Starting in the second semester of 1960-61 meetings of the French and Spanish teams were thereafter held separately. The supervision included visits to the various instructors' class meetings with both observation and participation (in the teaching) by the supervisor. Further coordination was achieved through individual conferences with the instructors.

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[2] The nine weekly contact hours of 105-61 were met by three instructors teaching three hours each per week and the four contact hours of 105-62 were met by one instructor.

[3] For the complete listing, see Appendix X

Insofar as was possible an attempt was made to coordinate techniques and progress in the two languages. Although in a broad sense much similarity was maintained in the handling of the French and Spanish, experience tended to draw us apart as we sought means to solve instructional problems peculiar to each language.

The investigators wish to acknowledge gratefully the ideas and advice of our colleagues which emerged from the weekly meetings. Many of those contributions were used in the experiment and appear in this and earlier reports.

5. Testing for three purposes was performed throughout the three-year project, 1) frequent course-tests were given for the usual purposes of guaging instructional effectiveness and student achievement; 2) at each semester-end the CEEB-ETS Achievement Tests in listening and reading comprehension were given to

all experimental sections and to all other sections of French and Spanish at Tulane for the experimental-versus-control comparisons; 3) the MLA-ETS Proficiency Tests for Teachers and Advanced Students were given in 1963 and 1964 to measure the final effectiveness of the restructuring. Detailed treatment of the latter two testing programs appears later in this report.

We felt that the course tests and a speaking test developed by Professor Wilkins to supplement the CEEB-control comparisons produced some of the most valuable findings of the experiment although they were not all subject to statistical analysis. We had started from the premise that we were to adhere with absolute literal-mindedness to the audio-lingual sequence in the teaching of skills, and that we would maintain the listening-speaking phase throughout the elementary year. This meant that no measurements of progress, and, far more importantly, no reward to the student should come from anything but his listening and speaking ability. This had to be true of tests for dialogue comprehension, memorization, and oral production, and for student mastery of grammatical structure. While it might be relatively easy to lavish extensive testing attention on a limited number of hot-house experimental subjects, we were determined to devise no technique that would be unsuitable for later application to normal college teaching. In the present state of the audio-lingual art the normal student would have a book, yet his behavior must reflect thorough awareness of the primacy of hearing and speaking. Such awareness starts and is sustained by the teaching techniques, but it will turn into cynical disregard if the tests are not wholly in accord with the teaching.

The tests were prepared by the applied linguist working with the supervisors of the two languages and when necessary with the psychologist. All tests and semester finals for the elementary courses were oral and were prepared on tape to assure identical administration. The test tapes were recorded by the native speakers of the teaching teams. In order to cut grading time to a minimum, all tests were administered by remote control (recording student responses only). Responses were subsequently copied on a single reel and in the early days of the experiment were checked by all members of the team whenever subjective judgment was a factor. After intensive experience in checking we learned how to train inexperienced instructors to a point of tolerable uniformity in subjective evaluations. Exclusively oral testing on the elementary level has since been adopted at Tulane in French, German, and Spanish as a result of this experimentation and the proper training and coordination of the evaluators remains a critical concern that must be faced each year and watched carefully at all times.

Experimentation with various formats of weekly dialogue and grammar tests led us to a measure of standardization by which the student could expect to be evaluated each week on quality of oral production, degree of dialogue memorization, and ability to produce correctly grammatical structures. The test instructions were normally in English, but the stimulus for the student's response was always in the target language, except in rare instances where a patterned translation drill (such as those in *Modern Spanish*) was adapted for a test.

The total student response time, which is eventually the minimum required to check the test, received very careful scrutiny since the supervisors and staff would be penalized heavily by long grading sessions if test length got out of hand.

We found that a weekly test with three to four minutes of response gave a satisfactory measure of progress and of individual differences. It was also sufficient to provide stick-motivation when appetites for carrots palled. Mid-term and semester-final exams were longer, but the response-grading time never reached thirty minutes and could usually be held to less than fifteen. At first the college teacher accustomed to giving two and three hour finals of the traditional kind recoils with distaste from what surely seems to be a desertion of standards. He then need only think of the sheer bulk of what can be spoken in eight to fifteen minutes, and consider the decisive extent to which a student wi[illegible] reveal his speaking (and comprehension) mastery in [illegible] structured responses lasting that long

As the transition was made in the second level [illegible] ing and writing, the format and time required for exam[illegible] ged.

Oral responses of various kinds cont[illegible] inations and the time allotted for them [illegible] but that element became progressively less [illegible] examination. (For sample tests and examinations and [illegible] ed explanation, see Appendix II.)

II SPANISH

A. The Elementary Level

1. Materials

The MLA-Harcourt Brace Modern Spanish text and accompanying recorded materials were used all three years of the project both in Section 61 and Section 62. The control sections continued to use Lagrone's Basic Conversational Spanish (Holt) during the first two years (1960-62), and changed to Modern Spanish for 1962-63. (See II. D. 1.)

During the first semester of the project we found the Modern Spanish disks containing the dialogs and to a greater extent the 3 3/4 i.p.s. tapes of drill material, to be deficient in the high frequency range; the quality was not sufficient to permit generally unerring recognition of unfamiliar Spanish sounds without reference to script and without live monitoring - conditions particularly necessary to the proper instruction of section 62. During the first year we tried exaggerating the high frequencies in all duplication. Meanwhile negotiations were carried out with Harcourt Brace to establish: (1) whether it would be possible ultimately to secure fully adequate frequency coverage from the 3 3/4 i.p.s. masters supplied by them, and (2) whether the publisher could supply masters at 7½ i.p.s. at a feasible price. We concluded that if it were possible to do all teaching from the publisher's master, without intervening steps of duplication, the 3 3/4 i.p.s. tape might have served for the range of sound required to teach Spanish. However, the preparation of teaching tapes, the editing of dual-channel masters, and the production of multiple dual-channel copies entailed two or more generations of duplication. Despite all precautions the quality of the sound that would ultimately reach the student was not considered up to the required standard. The second alternative produced a basic price of $322 for a 7½ i.p.s. version on 10" reels of 1.5 mil tape recorded two-track. All recorded materials for the elementary level in the subsequent years of the experiment were produced from the 7½ i.p.s. masters, and the required level or quality was easy to maintain.

The limited forms of dialog drills then available made it necessary to prepare supplemental master tapes with a wider variety of drill versions. This deficiency has subsequently been remedied by the publisher. At the same time, however, Harcourt Brace slowed down the pace of Units 2-6 by a considerable lengthening of the pauses in the structure drills. For our experimental sections and for our post-project use at Tulane this was an unfortunate change.

Despite some problems with the recorded materials, it should be made clear that we considered ourselves most fortunate to have that generally excellent mass of materials available to us in 1960.

2. Presentation, Section 61 (9 contact hours)

a. "Class" versus "lab". In the teaching of Section 61 there was no uniform designation of hours or portions of hours as "classroom" as opposed to "laboratory"; reference to the sample unit schedule (See Appendix III) shows this division generally in terms of "live," "discussion," and "tape". An analysis of the work of a typical semester gives the following general distribution of time utilization:

89% (99 hours):	Presentation of new material, and subsequent drills, and tests
11% (12 hours):	Review sessions concentrated at the middle of the semester and end of semester.
100% (111 hours):	Total contact time.

The 99 hours devoted to presenting and drilling new material had the following total distribution:

19%:	Live dialog memorization.
24%:	Monitored dialog drill, including record-playback
43%:	Monitored tape drills of grammatical structures, including brief correction and explanation over intercom to individuals or group.
1%:	Reading - at sight, live.
2%:	Recorded quizzes, one per unit
2%:	Live review of structure and drills.

1%: Writing (largely dictations).

8%: Other activities. These included question-answer on dialogs, and in the second semesters recorded Spanish language broadcasts of current events and other suitable radio discussion

In summary, although all work was done in the same laboratory-classroom, approximately 66 hours were devoted to work that can be described as a monitored laboratory function and 33 hours were spent in live activities appropriate to the classroom. The remaining 12 hours of review were conducted 57% live and 43% as monitored tape work. After some experimentation we decided empirically that record-playback gave best results when used on dialogs after a fairly good level of memorization was reached. We soon ceased using record-playback on the grammar drills.

b. Dialogs. Memorization remained the objective throughout the duration of the project; techniques of achieving it, the degree of memorization demanded, and criteria for degrees of memorization were problems of gradual solution during the first semester and were not entirely satisfactory until the second year. By then we had developed techniques and criteria that were applied consistently during the last two years of experimentation, and that continue with few modifications to be standard practice at Tulane

1) **Techniques of memorization.** We discovered early that to present and drill from tape an entire Modern Spanish dialog in the segmented form of the disks through Dialog 10 gave a very low yield of memorization for the time spent. A subjective state of "familiarization" was readily reached and boredom ensued. "Familiarization" was not subject to valid measurement and was of doubtful value as a road to learned structures and vocabulary. After some weeks of experiment we evolved the following procedure which has proved satisfactory. Each dialog is divided into logical portions ranging from [illegible] to sixty words, there being four to six such portions per dialog. At the outset fifteen or twenty minutes were necessary for mem-orization of each of these portions up to a standard described hereafter. They were drilled live by the instructor during the first four to six of the nine weekly contact hours (see typical unit schedule, Appendix III). Two memory aids were devised for subsequent drill and repetition of memorized portions: the "cue sheet" and the "cue tape". A cue sheet containing the first word or two of each speech or sentence in the dialogs was distributed as each new dialog was undertaken.[1] Our original cue tape consisted of the dialog with pauses so timed that the student [illegible]

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[1] The cue-sheet has been abandoned in our post-experimental procedures.

anticipate, never repeat, the master voice.

Two further varieties of "cue tape" were devised and used during 1961-62 and subsequently. Our "word cue reinforced" tape consists of the first word or two of a dialog sentence followed by a pause for the student to give the entire sentence after which comes the native voice with the complete reinforcement and a pause for repetition. The simple "word cue" tape is the same but without the reinforcement. The latter is used to perfect the final stage of memorization and is also the form in which dialog memorization is tested.

Of the total nine contact-hours (50-minute periods, 450 minutes weekly) an average of 80 minutes was devoted to live dialog memorization, the range being from 60 to 100. Another average of 110 minutes was spent on tape drills of each dialog, full segmented drills in part, cue-tape drills in the main.

2) Degree of memorization and the criteria. The devices of the cue sheet and cue tape gave us a system of rough standards for degrees of memorization. Toward the end of each week the students were able to reproduce the dialog in its entirety either from the "cue sheet" or the "word-cue tape", the latter being preferred.

3) Memorization and pronunciation. The compatibility of memorization, fluency, and phonetic accuracy required per-

ticular attention. Thorough memorization and fluent (native pace) reproduction were attained efficiently, but as perfection was approached in these two objectives there was usually a marked decline in phonetic accuracy. We were probably dealing with a normal phenomenon of priority of objectives. As long as memorization and native pace were paramount in the student's mind, phonetic precision suffered. Once the dialog was memorized and subsequent cue tape drill sessions were undertaken, the monitoring function became most important. The instructor polished the performance, identifying and correcting the individual students and sounds that suffered phonetically from what may have been a normal result of concentration on accuracy of memory and rapidity of production. A similar phenomenon dismayed us through the full three years as these students progressed. A demand for instant response would usually elicit a lower level of phonetic accuracy than the student was normally able to produce under other circumstances.

c. Grammar Exercises. In the nine-contact-hour section all grammar, like the dialogs, was taught and drilled under supervision, no outside work being required. Unlike the dialogs, it was more efficient in terms of time and learning to rely mainly on the tape for the grammar presentation as well as drill. This necessitated great care in editing a tape designed for each of the hours devoted to each unit of *Modern Spanish*. A decision had to be made on the question of delaying the grammar drills until the whole dialog had been memorized; after some experimentation we chose to proceed with the grammar before complete memorization was attained. It should be noted that this decision could not be applied to the French sections where the drills were much more dependent on mastery of the current dialog than is the case with *Modern Spanish*.

1) Preparation of the tapes. Basic to the organization of the work for each week (usually one unit of *Modern Spanish*), for each hour, and portion of an hour, was accurate knowledge and control of the time required to perform each function demanded by the body of material being taught. We were guided by the desire for maximum achievement for time spent and the challenging realization that the students were expected to know nothing audio-lingually that we and the tapes did not fix in their minds and speech organs during the nine contact hours.

Dialog teaching and drill time as stated above were determined empirically early in the first semester. The tape time of each drill of each unit was ascertained and noted in a copy of the text (where it might well have been placed by the publisher). Rough decisions had to be made on the number of minutes that should be allowed for live comment by the instruct or in each section of the unit. Portions of dialog or drills had to be chosen, with the most unscientific criteria, as best suited to record-playback practice. With this information the minute-by-minute schedule, a tape divided into bands by white leader, was built up of dialog drill, cue drill, and grammar examples and drills. We were thus able to predetermine the amount of attention given each item and adhere carefully to the schedule. Errors in judgment on time requirements were noted and corrected by re-editing the tapes for the following years.

2) Instruction of new grammatical structures. Early in the first semester of the experiment the hourly teaching tapes omitted the examples and contained the grammatical drills only on the theory that introduction of structures was a "classroom" rather than laboratory function. By the sixth week this was altered to a combination classroom-laboratory technique that took advantage of the economy of time that a well-edited tape tends to enforce and yet retains the value of the classroom teacher's judgment. The instructor would start the tape of a new grammatical section allowing the students to repeat the examples while he estimated by their responses and behavior their degree of understanding of the new point. He might stop the tape to remove student doubts and assure himself that they knew what they were dooig. The burden of the learning was thus on

the students who were expected to reach their own understanding of the new structure. In this process they were aided but not led by the instructor whose role was that of an alert and helpful onlooker rather than orator on grammatical subtleties. Once the examples were completed it was often expedient to stop the tape for a few seconds, allow the students to glance over what they had done in the text, ask pertinent questions, and then proceed as soon as possible to the drills where the actual learning takes place. The monitoring continued then largely to ascertain whether, by the third or fourth appearance of the pattern, the class had caught the point thoroughly. If not, the tape was stopped again and the instructor cleared up the difficulty with two or three live repetitions of the pattern. In all of this the basic timing was established by the tape and was modified by the instructor only according to clearly evident needs.

d. Grammar Discussion. As is implied above every effort was made to eliminate or reduce to an absolute minimum any need, real or apparent, for grammatical discussion. By the end of a set of drills the pattern in question was almost invariably learned and motivation for questioning or discussion had vanished. The students were expected to read and understand the grammar discussions of the text but we did not find, in the first thirteen units, that this consumed any appreciable amount of class time. Units 14-24, covered in the second semester, include the treatment of the subjunctive. Time was allotted to provide an extra two or three minutes with each such drill to clear up problems.

e. Reading. Through Unit 9 the students were not asked to look at reading passages in advance. Five minutes usually sufficed for the instructor to read aloud the passage to the class while they followed it in the book, usually with complete understanding. Later it was possible to engage them in limited question-answer sessions on these passages. Beginning with the longer reading passage of Unit 10 advance assignments of the reading were made. The students were asked to read through the passage making every effort to understand but not to look up words, not to turn it into English, and to mark any portions that seemed troublesome. In the allotted class time the difficulties were cleared up as expeditiously as possible and the remaining time was given to question-answer and discussion. The class was never asked to read aloud from the text nor were they allowed to think that any part of their grade depended on a reading skill of any sort. In the second semester of the first year of the experiment advance reading assignments were made for the second of the usual two reading selections contained in each unit, while the first was read at sight in class. Reading for outside preparation was discussed and tested in class by a variety of techniques, none of which was wholly satisfactory. The quiz most often used was a series of recorded questions that might or might not be those provided in the text. The answers were oral and recorded. We also attempted to elicit original oral summaries, both extemporaneous and from advance preparation. After studying the results of our first year-end testing program, in which the reading skill seemed to be an inevitable concommitant of audio-lingual skills developed in college freshmen, we omitted the long reading passages with no ill effects on the level of reading skill attained.

f. Writing. Writing of two kinds was required of Section 61 during the first semester of the first year: the "writing exercises" included in Modern Spanish, and a series of original dialogs which were discontinued as possibly harmful from the audio-lingual viewpoint. The dictations of the "writing exercises" were returned to the students, corrected but bearing no grade. We found that the majority of the errors could be described as of the "native speaker" type (confusion of b and v, capricious absence and appearance of h, etc.).

The original dialogs were begun in the fourth week as an attempt to elicit a thoughtful and creative re-arrangement of learned patterns. The topics assigned came from earlier dialogs and were approximately seventy-five words in length. These were memorized and recorded from memory. The recorded version only was then evaluated by the three instructors of Section 61 and comments were returned to the students via their written scripts. These were continued through week nine by which time it became evident that the desire for originality led them beyond learned patterns and that writing and memorizing such material was a clearly harmful practice, and in subsequent years the teaching of writing beyond the most elementary spelling level was postponed to the second-year level.

3. Presentation, Section 62 (4 contact-hours)

In the early stages of planning, it was uncertain as to which material would be best suited to unsupervised laboratory practice. By the end of the first semester, however, the general procedure was to concentrate on dialog practice and selected pattern drills for individual work, check this briefly during class and quiz sessions, and spend the remainder of class time on material not appearing on dual channel tapes prepared for laboratory practice. In subsequent years and in our post-experimental application we made all material available for individual use.

a. Dialogs. Memorization of dialog was strictly required of each student. During 1961-62, and subsequently, first presentation of any particular segment was done without books in class. The technique was as follows: students were read the English version of the segment; they then listened to the Spanish original on tape until comprehension was no problem. At this point the instructor drilled the students on the dialog, breaking up each utterance into meaningful segments and building up to oral mastery of the entire utterance. Accurate imitation of the model was the goal here: memorization was reserved for individual lab hours. This procedure is the reverse of the one followed in 1960-61, the first year of the experiment where dialog drill was done after the students had worked with the material. It was felt that guidance was more important in the initial stages of dialog study where the strictly audio-lingual approach could be enforced. Later memorization with cue tapes and cue sheets could be not only easier, but the chances of overlearning mistakes was somewhat lessened. Cue tapes of each dialog followed the straight dialog drills on the dual channel tapes for individual use, and were rarely used in class except for review purposes and quizzes.

b. Drill material. Classroom drill material was mainly pronunciation drills, selected pattern drills, and occasional translation drills. It was decided that taped material for unsupervised laboratory practice should consist of, in addition to the dialogs, those drills teaching verb morphology and syntax (especially on the subjunctive), plus other syntactical patterns differing widely from English. With this arrangement, students requiring more time to learn such patterns could do so without hindering the progress of the classroom work. This material was introduced briefly in class, and followed up by any necessary explanations of grammar after the students had mastered the drills. Eventually students were permitted access to all drill material in each unit so that further practice was possible on exercises presented in class but not appearing on the dual channel tapes. During 1961-62 and subsequently a suggested schedule of tape utilization during the five weekly unsupervised hours was made available. It was found to aid mainly the less able students.

c. Grammar sections. Very little time was scheduled for grammatical explanations. The students were expected to read the discussion following each section and were free to ask necessary questions. Further judicious explanations were occasionally given, although lengthy discussions were categorically refused or reserved for private interviews.

4. Reading. During 1960-61 the reading selections were read aloud to the students as they followed in their books. The pace

was swift enough to hinder tendencies to translation and the selections were briefly discussed in Spanish by means of question-answer sessions. During the second semester, the treatment of reading material continued, but was not so consistently followed, and in the last two years of the experimental beginning section no reading was done.

B. The Second Level: 1961-62, 1962-63.

1. Materials, 1961-62.

Spanish 205-206 began the year using selected drills of *Modern Spanish* as review during the first six weeks. Other materials in the first semester included selections from Wilmac, *Circling the Globe with Spanish* I, II, III, and IV for dictation and comprehension, tape copies of classroom lectures for laboratory review, and finally a complete recording of Alejandro Casona's *La sirena varada*. In the second semester Spanish 206 read Diego Marín's *La civilización española* (Holt, etc.) and in the laboratory worked with recorded commentary on and excerpts of *jarchas*, the *Poema del Cid*, *Libro de buen amor*, *La Celestina*, *El alcalde de Zalamea*, and *Don Juan Tenorio*. Additional structure review came from the Edu-Tek Linguatape Spanish Series.

2. Presentation, 1961-62.

The fifteen students of 1960-61 who returned to Tulane-Newcomb the following year were combined into a single section, Spanish 205-2-6, consisting of nine from Spanish 106-61 and six from 106-62. The course was conducted in Spanish. The instructor felt free to use English as a matter of momentary expediency, but the instances of so doing were rare.

a. Objectives

1) Audio-lingual skills were to be re-established, presuming some loss over the summer vacation, and then improved by live and tape instruction in the three weekly classroom hours, and tape work in the three laboratory hours.

a) Oral comprehension was thought to need little specific review apart from that necessarily associated with pattern drills, and it was hoped that new and increasingly complex comprehension material could be introduced rapidly in class and lab.

b) Speaking, it should be recalled, had thus far been our only criterion of active command of grammatical structures and vocabulary. Therefore the re-establishment of this skill entailed an extensive review of Spanish structure through pattern drills. The second and major objective was to progress from what we should recognize as "pattern drill skill" to freer individual manipulation of the patterns so mastered.

2) Reading and writing skills were to be introduced during the first semester for the first time in the experimental sequence as an important part of the instruction and testing. The guiding principle was to move always from the known audio-lingual language to the unknown graphic representation.

a) Reading skills as shown in Table and Figure 1.19 were acquired during the first year apparently as a transference from the audio-lingual with little difference being made by the amount of time devoted to it formally. Accordingly in 205 also it was hoped that this skill would continue to improve as a by-product of progress in the other three. Only in 206 (the fourth semester) would reading be taught, if necessary.

b) Writing in 205 was to begin with simple orthography, since only the few writing drills in the early units of the MLA text had been given during 1960-1961. The objective for the semester in this skill was to progress to the point that in 206 we could expect some capability in theme composition. At all times the starting point was to be the known oral language and at no time would there be "composition" in the form of written translation from English to Spanish.

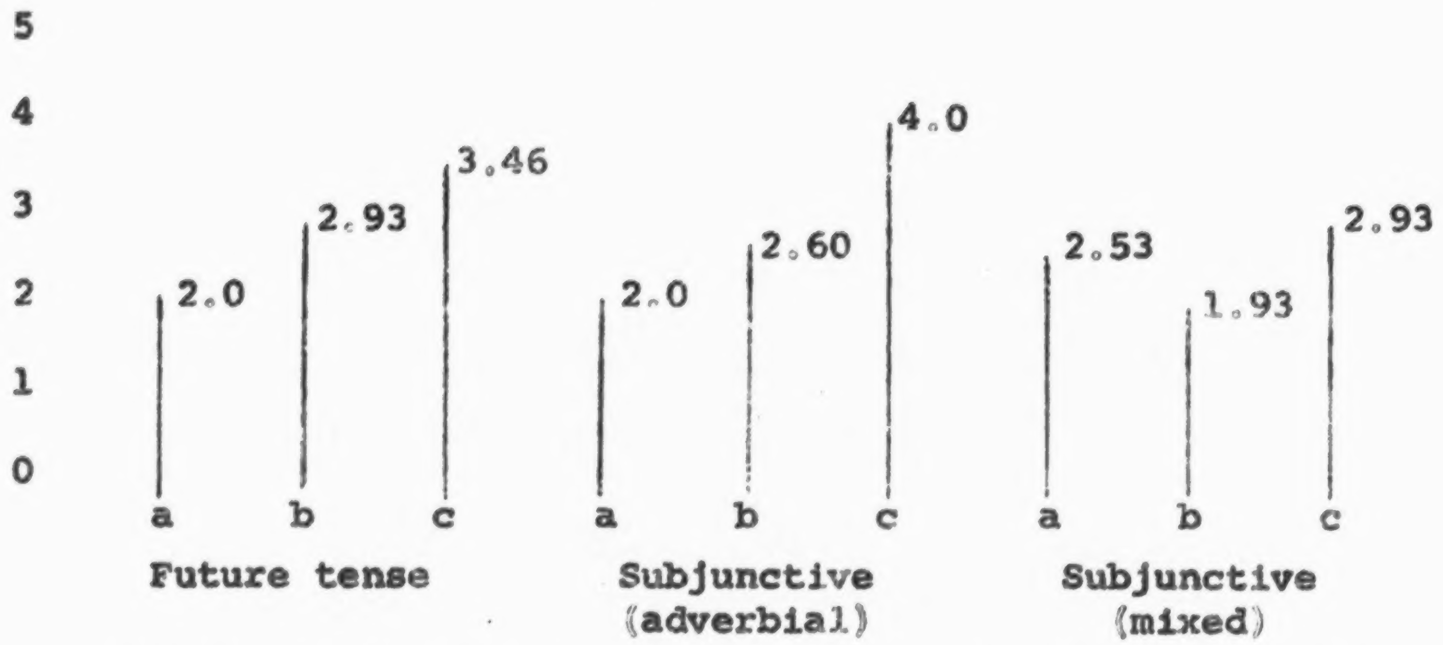
Finally it was important to bear in mind the ultimate dual objectives of professional competence as language teachers and the literary goal of language study in a liberal arts program.

b. Procedure

1) Structure Review. Spanish 205 began with six weeks of review of selected sections of the MLA text. Each week the students were provided with dual-channel tapes of _Modern Spanish_ drills totalling approximately 90 minutes running time, to which they were to devote a minimum of three hours in the lab. During the three class periods of these weeks the instructor checked the students briefly on sections covered by the tapes and drilled them more extensively on other sections. Classroom drill was done mainly live, at times with the help of a tape recorder. In the seventh week the class was given a recorded-response quiz which contained elements that had appeared on their final examination of May, 1961, in order to ascertain loss or gain. In the seventh week general weakness was noted in the use of the future tense, the subjunctive in adverbial clauses, and in a section of mixed subjunctive usage. The laboratory portion of the ninth week was devoted to a review of these items and in the tenth week another test included elements from the first one.

On five random items in each of the above categories the results of some 40 lab and class hours of review of _Modern Span-_

ish were as follows:



a. average performance on five items in 106 Final, May 1961

b. average performance on the same items in 205 Mid-term, October 11, 1961

c. average performance on the same items in 205 quiz of November 21, 1961

Although improvement is evident it is probably not commensurate with the time devoted to review.

2) Writing. Beginning in the second week and continuing through the eighth the lab tapes included also from 1 to 3 minutes of unfamiliar narrative material which the students were to write out as dictation. Pauses for writing were included in the tapes. The purpose at first was diagnostic to determine the nature and extent of spelling difficulties, little attention being given to meaning. After eliminating a few English spelling tendencies the class was producing authentic but capricious

Spanish Orthography. Thereafter meaning was associated to the writing by supplying to the students specially prepared dictation sheets having a left-hand column of English corresponding to the Spanish they were to write from tape dictation in the right-hand column. As this work progressed and revealed weaknesses class time was devoted to the teaching of spelling. Using the Spanish-American subject matter of these dictation-comprehension tapes as a starting point the instructor devoted several class periods to lectures of a general nature on the history and regions of Spanish America and then of Spain. These lectures were recorded in the classroom, made available in multiple copies in the lab, and reappeared in the oral portions of examinations.

3) Oral comprehension, writing and reading. The first 4½ weeks of the semester were devoted to Alejandro Casona's *La sirena varada* in a completely Spanish edition. The students received an English translation of the play in the same format as the earlier dictation sheets, each page having a blank right-hand column. The complete play, recorded in Spanish, was available in the laboratory. Listening to the tape, stopping and replaying as needed, each student wrote his own Spanish text in the blank columns opposite the English. A schedule of required

progress was established and the normal class periods were devoted to (1) problems encountered in the transcription, (2) live drills based on the language of the play, and (3) discussion of the work as literature-entirely in Spanish. Having the English the students' very considerable effort was concentrated solely on Spanish, hearing it, writing it correctly, and producing it orally on demand in class. Since this play exists in text-book form with vocabulary in English, the students were not told the title or author of the play; only that it was 20th century Spanish. An important practical reason for selecting this play was ease of recording due to the limited cast.

4) Reading, comprehension, and speaking. In the fourth semester of the experimental sequence, the students of Spanish 206 bought the only printed text used during the year, Diego Marin's La civilización española. The semester began as a conventional reading course with assignments and discussion of reading problems and content in class. The noteworthy differences were that the class could be handled in Spanish and that the students were asked not to use the Spanish-English vocabulary. Beginning in about the fourth week the instructor could take for granted adequate comprehension of the reading assignments; the class periods thereafter included a portion devoted to formal lecture amplifying themes mentioned in the text and a portion

devoted to class discussion of the subject matter.

Once the reading was progressing with relative ease and the survey of civilization had reached the formative period of Spanish literature, the laboratory work began again with a series of tapes devoted to literature. The usual format included first a brief introduction supplementing, for example, Marin's remarks on the Poema del Cid. Then would come a reading of a brief excerpt from the Cid in Modern Spanish the text of which was supplied to the students in the lab. This would be followed by a line-by-line analysis and clarification of the passage, preferably done by two voices in the form of a discussion. The purpose was to assure complete understanding by the student while he concentrated on the Spanish without recourse to English in the form of vocabulary or dictionary. This literary material was solely a lab function and reappeared only on examinations.

5) Writing. Through the semester Spanish 206 had a weekly theme assignment on a topic related to the Marin text. The themes, one to two hundred words in length, were checked by the instructor who marked errors and noted the number of the Modern Spanish section dealing with the structure in question. The student was required to examine the reference section, correct his error on the original paper and re-submit the theme.

It will be noted that except for the pattern translation drills of Modern Spanish no translation has been required or rewarded during the four semesters of the experimental sequence. Penalties for evidence of translation thinking on examinations forced the students to remain within their grasp of the Spanish system despite the frustration of intellects understanding and wanting to say more than they could. The consequent lack of translation skill in students who otherwise showed remarkable competence in Spanish seemed an odd anomaly to instructors with long experience in fourth semester Spanish courses, and it may also affect the results obtained from any tests that depend on English-Spanish equivalences.

3. Materials, 1962-62.

The second year that 205-206 was taught we again used Modern Spanish for review, but all other materials were changed. They included Yates and Dalbor Imaginación y fantasía and all of its recorded material; the Edu-tek, Linguatape, Spanish Series B, the Austral edition of the Poema del Cid (Menéndez Pidal-Alfonso Reyes), and Perry, Heath Anthology of Spanish Poetry. We utilized also locally-made question-answer tapes on the Poema del Cid and commercially available recordings of some Romances and of the Coplas of Jorge Manrique.

4. Presentation, 1962-63.

The twenty-eight students in this course, taught in two sections, included the following from the 1961-62 beginning classes: eight from the experimental 106-61, eight from the experimental 106-62, and twelve from Spanish 104, a regular Newcomb section in which most of our techniques developed experimentally in 1960-61 had been introduced in 1961-62. (See description in "Controls", Part D. 1. c.) Now being taught for the second time, Spanish 205-206 was revised totally insofar as procedures of presentation were concerned, while all of the objectives stated in B. 2. remained the guiding principles.

Since the students from Spanish 104 had completed but twenty Units of Modern Spanish, the first four weeks of Spanish 205 were devoted to covering the last four Units as review for those from 106 of the previous year, and as new material for those from 104. At this point dialog memorization was not required, but students were to be able to repeat it accurately. The three hours of unsupervised laboratory work consisted of the tape material from Units 21-24 plus the supplementary dialogs from the Teacher's Manual which were recorded for dictation pruposes. The three class hours during the first four weeks were devoted to pronunciation drills, verb drills, spelling drills, and dictation based on the supplementary dialogs. At the end of this period a test was given which included drill material, dictation and spelling test.

The remainder of the semester was devoted to Yates-Dalbor Imaginación y fantasia, a reader. The selections were taken in order of their length and presented as follows: In class, a short summary was read to the students by the instructor to provide a context for the actual reading. The students then followed the reading of the story in their books, while the instructor read slowly, phrase by phrase, stopping, when meaning was a problem, to paraphrase, act out or, if necessary, give an English equivalent. At the end of each paragraph the section was re-read at normal speed, again stopping when necessary. In short reading was done orally at first, with class preparation in reading kept to a minimum in order to ensure that the student would not translate. The idiom and translation drills were treated as repetition only. The summaries would also be used later as dictation. Outside of class the students listened to the taped version of the story and drilled on the question-answer section and the pattern drills included in the Yates-Dalbor material. The answers to the recorded questions were taken down as dictation, turned in to the instructor, graded and returned. The students were required to write compositions related to the theme of the story after it was felt they could do so. The themes were checked by the instructor, who marked errors with references to sections in Modern Spanish. The students then referred to the section in the text, corrected the error and turned in the theme again. Tests and the course final consisted of question-answer on the reading selections, pattern drills from the tape, dictation from tape as well as written question-answer, and written summaries of passages heard from tape.

In the spring semester Spanish 206 began a three-semester literary masterpiece sequence, intended to run through 206, and 305-306 of 1963-64. Class sessions, conducted entirely in Spanish, were devoted to reading and explication of texts, giving supplementary historical and cultural material where pertinent. The Alfonso Reyes[6] prose translation of the Poema del Cid was read in its entirety, and also the folowing selections from the Heath Anthology of Spanish Poetry:

Gonzalo de Berceo
Juan Ruiz, Arcipreste de Hita
Romances, selections
Marques de Santillana
Jorge Manrique, Coplas

Homework outside of lab consisted of preparation of the reading material, using a Spanish-Spanish dictionary (Sopena, La Fuente), and writing short themes based on the reading material. Lab work was mainly pattern drills from Edu-Tek's Linguatape, Series B, supplemented by question-answer on the Poema del Cid.

selected romances, and the Coplas. As in the first semester, testing was done on reading, writing, and drill material.

In the post-experimental years since 1962-63, the procedures described above have remained essentially unchanged. We have abandoned the recorded question-answer material on the Poema del Cid in favor of professionally prepared commentary on the Poema and its background, and we are continuing to experiment with devices for semi-free composition that can avoid the disadvantages of translation yet maintain the advantage of controlling the structures to be used by the writer.

At present 205-206 is limited mainly to students who began their Spanish at Tulane-Newcomb, and is therefore composed largely of sophomores. We conduct parallel intermediate courses for freshmen who present traditional grammar-translation preparation from high school. This situation motivates us, on the one hand, to identify accurately the freshmen whose preparation fits them best for the 205-206 continuation of the audio-lingual sequence; on the other hand we are attempting to conduct both second-level courses in such a way as to promote a fusion of the two "tracks" at least by the time they reach the third level.

C. The Third Level (1962-63)

1. Materials.

Spanish 305-306 read the Austral editions of the *Poema del Cid*, *La Celestina*, and *Lazarillo de Tormes*; Cervantes' *Rinconete y Cortadillo*, *El licenciado Vidriera*, and *El celoso extremeno* were read in the Doubleday "Colección Hispánica"; Lope de Vega's *Peribáñez* and Calderón's *La vida es sueño* were from the "Clásicos Castellanos". Poetry of the medieval period, Renaissance and Golden Age was read in Perry, *Heath Anthology of Spanish Poetry*. Tape material included the Edu-Tek, *Linguatape, Spanish Series B*, commercially available excerpts from *La Celestina*, *romances*, Golden Age poetry, *Peribáñez* and *La vida es sueño*. The students of 305-306 bought and used a Spanish-Spanish dictionary, the Sopena-*La Fuente Diccionario enciclopédica*; some of them however also used Spanish-English dictionaries despite instructions to the contrary.

2. Presentation, Spanish 305-306.

This three-crddit course was taught for the first time in 1962-63, and was designed for the group who began Spanish in the first experimental sections of 1960-61. Three kinds of attrition had reduced the original twenty-two to two as of September, 1962. Some had dropped out of college or transferred, others were not required by their degree programs to take a third year and could not be forced or persuaded to do so, and a few had qualified for our Junior Year Abroad program. One of the latter spent the year 1962-63 at the University of Madrid. Six additional students, freshmen, selected as described in Part I. C. 3, entered the course, and the total of eight continued through the year.

Spanish 305-306 was intended as a one-year literary masterpiece course presented in chronological order. The original design, which was to include major works of the medieval, Renaissance, Golden Age, 19th and 20th centuries, had to be cut back, eliminating the latter two centuries. This was due in part to errors of judgment in planning this experimental level for the first time, and it was due also, perhaps mostly, to the lack of college-level literary experience of the freshmen who added to the course on the basis of proficiency in language skills.

Continuing the practice established in 205-206 in 1961-62, the 305-306 was taught entirely in Spanish and every effort was made to keep all reading within the Spanish frame of reference. This began with the use of normal Spanish trade editions of all works; it was continued through the use of a Spanish-Spanish dictionary, and was carried out in class by paraphrase and explanation in Spanish of difficult passages. At semester beginning the classwork was handled as described for Spanish 205-206 in Part B 4 above until reading ability of the *Cid* and Renaissance texts was established. Lecture material was soon introduced and the remainder of the classword consisted normally of clarification of problems, background lecture, explication, and discussion with class participation. The six hours per week of preparation expected outside class was divided between library-lab pattern drill practice and homework on the reading. The latter predominated at an average ratio of almost 5 to 1. A paper in Spanish on a literary topic was required each semester. The mid-term and final exams demanded oral responses to check structural mastery, oral responses to literary questions, and written essays. The works listed in Part C. 1. were covered in their entirety except that selections were made in the anthology of poetry.

3. Post-Experimental Procedures.

Modifications made in the plan for the Second Level the second time it was taught (See Part II.B.3-4.) implied developing a three-year sequence with a reversal of emphasis in the middle, i.e., at the end of the third semester:

Elementary	Semester 1:	Exclusively audio-lingual approach to the two skills only.
	Semester 2:	
Second Level	Semester 3:	Maintenance of audio-lingual, plus major attention to reading and writing as skills.
	Semester 4:	

Third Level { Semester 5: Renaissance - Golden Age
Semester 6: 19th and 20th Centuries.

The difference between semesters 3 and 4 is intended to be one of slight degree although it marks the point at which the more traditionally humanistic attention to language and literature first takes precedence over the mechanics of skills. While the latter consideration is never abandoned, it is expected that language, in all its skill aspects, will gradually assume its normal role as the indispensable tool for the study of literature in a liberal arts program.

Having introduced this change in the Second Level of 1962-63, we naturally altered the coverage of the Third Level in 1963-64 and have maintained it with minor procedural changes since that time. We were gratified and somewhat surprised to find that Spanish medieval literature has been a very successful means of transition from the audio-lingual skill sequence to the study of literature. Our one complete failure in the literary program came in the area of Renaissance prose. Its complexity proved to be such an abrupt change of pace that we were obliged to eliminate most of it.

D. The Controls

As stated in Part I.B., all Tulane-Newcomb courses in Spanish and French of the first, second, and third levels were to serve as the controls for the experimentation. At the end of each semester identical tests were given to all the students of a given language and the results formed our basis of comparison. The materials and procedures of most of the control courses remained the same over the three-year period. However, since the controls were, in fact, the great majority of the students in modern foreign languages at Tulane, taught by the greater part of the FL faculty, it was unthinkable to try to freeze the controls for three years, however desirable it might have been for the clarity of our comparisons. The instances of evolution that took place from year to year in the controls are set out in the following descriptions.

1. The Elementary Level

a. General Practice, 1960-1962.

During the first two years of our experimentation, the normal Tulane beginning Spanish 101-102 (numbered 103-104 in Newcomb) was a conventional course using LaGrone's Basic Conversational Spanish and meeting three hours per week in class plus two hours in lab. The class hours were spent on each lesson as follows: Hour 1 included a review in the form of conversation, intensive pronunciation drill on a sentence or two, conversation using the material of the lesson, brief explanation and drill of grammar points when needed, and often a quiz. Hour 2 included review, conversation based on the book's questions, study of the book's sentences for translation into Spanish (written homework), and a quiz. Hour 3 included review, the oral delivery of an original composition, close to the material of the book, by each student; most students memorized these in order to present them adequately. There was also an introduction to coming material during the third hour. The course was slanted, within the conventional framework, so as to encourage thorough outside preparation by the student and permit a maximum of oral work in the class. Continual review was also a feature. Some instructors were inclined to be more traditional in these respects, spending more class time on analysis. No reader was used in the first semester. In the second semester a reader, Crow and Crow - Panorama de las Americas, was introduced in the fourth week and continued as the subject of classwork one hour per week through the semester. The laboratory was on a scheduled, monitored basis, and used material furnished by the publisher of the text: repeated readings from the Spanish text of each lesson, and pattern drills on selected points. The lab work was tested and graded.

b. Modification 1, 1961-62.

During the second year of our experimentation, two changes were made in the control Spanish 102 of the second semester. In view of the results of our testing of May, 1961, it was decided to abandon the reader previously introduced in the second semester. Secondly, tape drills from *Modern Spanish* and from the Edu-tek Linguatape series were used for structure review although the course continued with the LaGrone text. Identical tapes were provided for the lab and the classroom sessions. The tape drills were introduced either in class or in lab; extensive drilling was done in the lab and on the following day the same tape was replayed in class as a spot-check test. The students met in class sessions on Monday, Wednesday and Friday, and were registered for lab sections on Tuesday and Thursday. This alternate day, class-lab, sectioning procedure has remained as our normal practice in all modern foreign languages.

c. Modification 2, 1961-62.

Spanish 103-104 was the Newcomb College equivalent of the 101-102 given in the College of Arts and Sciences. The Newcomb course differed, up through 1960-61, in that it was exclusively female and met 4 hours per week, while 101-102 was exclusively male and met three hours per week. The extra Newcomb hour was devoted to reading in both semesters; otherwise the teaching materials and procedures were identical in the two colleges. For 1960-61 the statistical results of 103-104 are combined with 101-102 and so designated.

In 1961-62, however, this course, consisting of one section, was changed completely to become our pilot-class for the eventual maximum application of our experimental techniques to the normal college class. The course is therefore described and set out statistically as a separate control group. 103-104 used the MLA Harcourt-Brace Modern Spanish text, fitting it into the existing schedule of beginning Spanish at Newcomb: four class hours and two monitored laboratory hours per week. The procedure for presenting the dialog and grammar was completely audio-lingual, using both the prepared MLA tapes and live presentation of drills. The usual class consisted of 15 to 20 minutes of assorted grammar drills (for which there was no previous outside preparation) in which the entire class participated orally. Discussion of grammar points was kept at a minimum. For outside work the students had access to dialog tapes which they used to perfect their memorization during individual, un-monitored hours which were scheduled for that specific purpose. They were encouraged to put in three hours weekly on their own. The monitored lab sessions used pronunciation drills, drill on the portions of dialog introduced in class, and certain grammar drills from the prepared MLA tapes.

All testing was oral and recorded, done during the lab sessions: there was one test per Unit consisting of a portion of the memorized dialog plus certain structure drills converted into test form. The tests were carefully edited and timed, usually taking about fifteen minutes to administer. Students' individual responses were recorded and graded from their tapes. Approximately 7 to 8 supervised hours were spent on each Unit. The class covered 20 Units during the school year.

d. Modification 3, 1962-63.

In September, 1962, following the Newcomb pilot session of 1961-62 described above, all beginning Spanish in the University, and therefore all the controls, was transformed as nearly as possible into facsimiles of the elementary level experimentals of the first two years of the project. Thus the comparisons for the beginning level of 1962-63 are between groups of students that differed mainly in that one group (105-106) knew that they were experimental sections and the other group (101-102, 103-104) had no such notion.

The new format of the three-credit-hour first level controls (which has continued as the normal elementary course at Tulane-Newcomb) combined features of both types of our experimentals. The five contact hours of the new course was a compromise between the nine and four of the experimentals; a version of the "team teaching" of 105-61 remained, and yet some of the individual library-lab work of 105-62 was present.

The students met for supervised work five hours per week and were instructed to spend at least three (additional) hours in the library-lab. The five contact hours included three in class MWF, and two in lab TTh, or TThS class plus WF lab. The lab grouping of the students did not correspond to the class grouping and so each student had two instructors, one in class and another in lab. Lesson plans were developed for every hour of class and lab and the work progressed consecutively through the week. Since a lesson tape was prepared for the instructor of each hour of class and lab, distinctions between those two types of teaching were greatly reduced. The objective was to approach the advantages we found in doing all teaching in a lab-classroom without being forced to the almost prohibitive expense of equipping fully and maintaining every classroom. In the class sessions tape was used on small consoles containing a portable tape player and high quality speaker. Sample weekly lesson plans are found in Appendix IV.

All tests and exams were oral-recorded and were scheduled for lab periods. In addition a few spot-check quizzes were given in the classrooms where the instructor would point to individual students to respond to single items in a drill or dialog cue tape running on the classroom machine.

Our format of five contact hours per week gave us about 140 hours for the year plus an indeterminate amount of individual library-lab practice, recommended at three hours per week or about 84 for the year. In this aggregate minimum of some 224 hours we found it expedient to cover twenty of the twenty-four units of Modern Spanish. The dialog-related readings were done occasionally and very rapidly. No writing was done beyond the dictations provided as such in the text.

2. Second Level.

a. Spanish 201-202. 1960-61.

This was a conventional college intermediate course that met three hours per week in lecture-recitation sessions and one hour in a language laboratory. The material included grammar review and reading. The laboratory drills were drawn from both sources in 201 and wholly from reading in 202. Most students entered the two-semester course as freshmen from two years of high school Spanish. In spite of the use of placement tests the group remained heterogeneous in preparation.

b. Spanish 211-212.

This was a freshman course for students with three or more high school units. It included grammar review and an introduction to literature. It met in lecture-recitation three hours and one hour in the language laboratory. Laboratory work was drawn from the subject matter of the course.

c. Modification 1, 1961-62.

Spanish 211-212 was discontinued at the end of the 1960-61 session. Thereafter freshmen with 3 or more high school units were placed in the third level or higher as indicated by placement test scores. Low-ranking freshmen having three or more units would usually be placed in 201-202.

d. Modification 2, 1962-63.

In the spring of 1963 an attempt was made to pattern the single off-semester section of Spanish 201 after the experimental design followed in Spanish 205 of 1962-63 (See Part II.B. 3-4.). The course had three class meetings per week and one hour of supervised laboratory work using the recorded materials for Imaginación y fantasía. Students were urged to spend extra time doing individual work, but this was not enforced. This class finished all of the stories in the textbook during the course of the semester, and had dictations, short reports and taped quizzes as in the 205.

3. Third Level.

a. Spanish 301-302. 1960-63.

This is a conventional conversation course taught in three lecture-recitation periods per week. Laboratory work is done at times but is not regularly scheduled. Either this course or 311-312 is the terminal requirement course for the college of Arts and Sciences.

b. Spanish 311-312. 1960-63.

This is a two-semester survey of Spanish literature using anthologies of prose and poetry. No laboratory is used. As of 1960 most of the students of this course came from the intermediate level 201-202. Starting in the fall of 1961 many of the higher-ranking freshmen, as determined by placement tests, who were formerly placed in the discontinued 211-212 went into 311-312. This change, as well as the fact that this course always has a few native speakers of Spanish, has permitted an increasing use of Spanish for lecture and discussion.

c. Spanish 325-226.

This course was designed primarily to prepare sophomore applicants for the Junior Year Abroad program to function well in a Spanish university. It has three lecture-recitation hours per week and three laboratory hours (one supervised, two unmonitored). The content includes civilization material and grammar-composition work as well as intensive oral drill. This course is elective; good conventional preparation and strong motivation are combined in the typical student.

4. Off-Semester Courses.

Tulane usually runs one section each of Spanish 101-102, 201-202, and 301-302 that is out of step: the course starts in February rather than September. By our numbering system an odd number (101, etc.) normally indicates work done in a fall semester, while an even number (102, etc.) normally indicates the spring. In the statistical reporting of Part IV an out-of-step even or odd number has implications beyond those readily apparent - primarily a very heterogeneous makeup of the class. An off-semester 101 and 201 typically has a number of students who failed Spanish or another foreign language in the fall semester. Also, while off-semester 201 and 301 will have some highly-motivated students who are accelerating their work in Spanish, one can usually predict difficult teaching and a lower level of achievement in any of these sections.

III. FRENCH

A. The Elementary Level

1. Materials.

The texts used in the French Experimental sections were the Harris and Lévêque Basic Conversational French (Revised edition) and Harris and Lévêque Intermediate Conversational French, both published by Holt. Since both sections had covered the first 151 pages of the Basic text in the first semester, work in the second semester took up at that point, and, upon completion of the book, the experimental classes moved on into the Intermediate book. Both books are oriented toward the audio-lingual presentation. The taped material for the Basic book concentrates on question and answer type drills, on translation from English to French drills, and the "demandez à quelqu'un" type drill which involves changing the subjects and verbs in the conversation sentences. There is a paucity of grammatical and structural drill material on the tapes. Even in the Grammar units the few such exercises are too short to teach the patterns thoroughly. This necessitated the making and recording by us of additional drills and exercises. Intermediate Conversational French has remedied this deficiency to a certain extent and the accompanying tapes supply reinforcement to the lessons in the book. The length of the Intermediate tapes (usually an hour) forced us to make a choice as to what could be learned better live or from the tapes. The experimental sections were able to finish the first 24 lessons (Section 61) and 20 lessons (Section 62) of Intermediate Conversational French in the second semester. Control sections finished the Basic Conversational French and read two elementary texts. In subsequent years additional taped structure drills were needed to enrich the Harris and Lévêque material. These were drawn from T. Mueller's La Structure de la Langue française (Wayne State Press).

2. Presentation, Section 61. (9 contact hours)

The nature of the books determined to a large extent the class room presentation. The basic unit in both books is a conversation which was used for pronunciation drill, for pattern learning, for oral fluency, and for drill on idioms in the intermediate text. The conversations were also used for dictation in an effort to begin the teaching of writing.

The first step in presenting the unit was to read the conversation live to the students with their books closed, then to have the students repeat the conversation still with books closed and with spot checking from the control panel for errors in pronunciation, then to repeat the conversation with the book open. Finally the conversation was memorized in class from the taped reproduction with checking and correction of errors in sound production. This procedure usually required 20 to 35 minutes of live and tape drill depending on the length of the conversation and its difficulty. Since the conversations in Intermediate Conversational French are longer and more difficult, it was normally necessary to use an hour to teach the conversation.

The early drills in Basic Conversational French are designed to reinforce memorization and involve some slight changes in sentence structure. The live run-through of these exercises usually covered 5 to 10 minutes. The second type of drill in Basic Conversational French involved substitution in the same basic sentence of a different subject or verb form. Done live and with tape it usually took from 10 to 20 minutes.

Intermediate Conversational French provides a review of French grammar along with the introduction of additional grammar points and idioms. The tapes accompanying this text provide the conversation and drills supplementary to the exercises in each lesson. It was found expedient to teach the conversation live with occasional taped drill.

Since the time necessary for one complete playing of a taped unit of Intermediate Conversational French is approximately one hour and the drills are supplementary to the exercises in the text, the most effective method seemed to be teaching the conversation live with occasional use of tape for spot checking and correction. As for the pattern drill exercises, some were done live from the book, some were done from the tape, and the more difficult and important exercises were done both from the book and from the tape.

In both books are grammar units offering explanations of the patterns which were learned in the preceding conversations. The responsibility for learning this material was left up to the students although time was allowed in class for questions and clarification of difficult points.

The usual weekly assignment was four units with two hours spent on each one. The ninth hour of the week was used for testing,pronunciation and reinforcement drills and review.

The occasional reading passages in Basic Conversational French were treated orally, i. e., they were read aloud to the students, difficult or new words explained in French, and questions asked in French to check comprehension.

Section 61 was able to complete 24 of the 30 units in Intermediate Conversational French before the end of the semester. Thus during the year this section covered the elementary text completely and more than two-thirds of the intermediate text.

Reading, as a skill, was not dealt with since the first semester's examination had indicated a proficiency equal to and even superior to the control sections in reading.

It was decided to begin the teaching of writing and spelling, since this is the most difficult skill to master due to the non-phonetic character of French orthography. Students were told in advance that they would be given a dictation from one of several conversations. Then at regular intervals during the week dictations of reasonable length were given to the students, errors marked by the teacher, the paper was returned and students were asked to make the indicated corrections and resubmit the corrected version.

A sample weekly schedule for both Basic Conversational French and Intermediate Conversational French will be found in Appendix III.

In the last two years the method of presentation was altered slightly to resemble that of the Spanish sections.

Students were not allowed to use their books during the first eight weeks. This was done in an effort to instill correct pronunciation and intonation patterns without the confusion which results from the unphonetic character of French orthography. Thus all conversations were memorized from the tapes and from live presentation. The exercises were also done audiolingually.

After the introduction of the books there followed a rapid review of the lessons covered in order for the students to see what they had learned. As was to be expected, orthography interfered with pronunciation for some time but this set-back was gradually overcome and progress during the rest of the semester was observed.

After the mid-semester it was expedient to break the conversations into parts for memorization, each part consisting of some forty-five to fifty-five words. Memorization was usually accomplished in approximately fifteen minutes. After the conversation was learned, checking of proficiency was done by the use of cue tapes and by record-playback to allow the student to discover his own errors matched against the master tape.

The Grammar Units were dispensed with as such. Material covered in the Grammar Unit was introduced in the same hour when memorization of the conversations was being done. Exercises on the points in the Grammar Units came either from Harris and Lévêque, from Mueller tapes, or from drills of our own making. Thus when the Grammar Unit was reached the students had learned the points covered in it and a minimum of time was spent on the intellectualized explanations (assigned for the students to read at home).

Extensive use of "cue-tapes," described under Spanish 105-106 provided an excellent check for student and teacher as to whether conversations had been mastered or not.

After the first year, both section 61 and 62 were able to complete the two Harris and Lévêque volumes.

3. Presentation, Section 62. (4 contact hours)

Section 62 has had the same objective as section 61, i.e., memorization of the conversation and its drills and of the grammatical pattern exercises.

Since the class met only four hours a week it was considered necessary to cover in class the entire four units which make up the week's work. This was done in order to prepare the student for what he was to learn from the tape drills or to check what he had already learned if the lab drill preceded the class hour.

Some time was available for drill and repetition in the classroom but most of the learning process had to be left to the student during their unmonitored lab work.

As in section 61 the conversations were first introduced with student books closed as they repeated what they heard. Then the conversation was read again and repeated with the books open. Memorization was completed from the tapes during the lab time. The same procedure was followed for the drills.

A weekly schedule of class and lab work was posted so that the students knew what they were responsible for at any given hour. All materials of the units had to be available on the tapes for the students of this section so that they could work on any part of it as they needed.

The students were responsible for learning the explanatory material of the grammar units. When it became necessary time was allowed in class for questions or additional explanations, but an effort was made to keep such discussions [illegible] and to a minimum.

The few reading selections in Basic Conversational French were treated in the same way as described under section 61. Since the CEEB-ETS examination at the end of the first semester showed an unexpected proficiency in reading comprehension, no effort was made to teach reading as a separate skill. Writing and spelling were introduced and pursued regularly as described under section 61.

The length of the taped material for Intermediate Conversational French required a choice as to what material to present in class and what would be best learned from the taped drills. In general the plan was to check the conversation in class for accuracy and fluency and also to do those exercises of the question-answer type, the "demandez a quelqu'un" type and the 'theme d imitation' type done orally, all of which are based on the conversation. The taped drills which the students learned in the five hours of lab were memorizing of the conversations, pattern drill of grammatical content or drill on idiomatic usage of certain current expressions. The grammar units which occur after every conversation were explained in class when the unit was assigned. The same type of choice as described above was made between class exercises and those to be learned from the tapes.

Section 62 was able to complete all of the *Basic Conversational French* and 20 lessons in the *Intermediate Conversational French*. The class thus finished all of the elementary text and two thirds of the intermediate text.

A sample of a typical week's work in both books will be found in Appendix III.

As the material got more lengthy and more complicated, especially in the *Intermediate* book, it became obvious that all the material could not be sufficiently covered in the four hours of class time. In the last two years it was decided that the students could most easily dispense with the live drills and classroom memorization of the conversations. The time for live presentation of the conversations per class hour was reduced to ten to fifteen minutes. Sometimes it was even dispensed with entirely. This allowed us to spend most of the class time on grammar and exercise drills which the students seemed less able to master on their own. Attention was focused especially on the taped drills of idiomatic expressions, most of which material was not included in the printed exercises in the book.

This seemed to be the most satisfactory method of dividing the material between class and laboratory work. It was an effective division, producing positive and negative results, its principal fault being that a split was established in the students' minds between the conversational material and the grammar drills. Instead of seeing the drills as products of the conversational material, they saw the drills as based on rules, and the conversations as something to be memorized for quizzes.

B. The Second Level, 1961-1963

1. Materials.

French 205 began the year with a rapid review of Harris and Lévêque, *Intermediate Conversational French*. Then we moved on to emphasis on the third skill. Reading of *Le Petit Prince*, which has some tape drills was emphasized. Additional drills were taped by us. In the second semester (206) Mueller tapes were used to continue oral drill and Denoeu's *l'Héritage Français* was the basic reader. Also read were Sartre's *Huis Clos* and Ionesco's *La Cantatrice chauve*.

In 1962-63 Sartre's *Les Jeux sont Faits* replaced the latter two plays.

2. Presentation, 205-206, 1961-62.

Both sections of the previous year's beginners were combined into a single section. The course met three hours a week in class and three lab hours a week (on the students time) were required.

205: The first part of the semester consisted of a review of Harris and Lévêque, *Intermediate Conversational French*. The supplementary drills were done in the lab and the book drills were done in class.

After this review the class proceeded to a formal introduction to reading. They were first required to listen to assigned chapters of *Le Petit Prince* on tapes, which had been edited to allow for student repetition. Class work consisted of reading the same chapters with the students and explaining in French the vocabulary items and structures that they were not familiar with.

The taped version used has questions involving structural drills and the students were required to take down the questions and write out answers in French. This was done in a effort to teach them structure and spelling. One class hour per week was devoted to correcting these questions, then the students were required to rewrite the sentences, benefitting by the corrections in class, and to resubmit the answers for grading. This device was used in the hopes of teaching them accuracy in spelling and grammatical construction.

206: The basic text used was Denoeu's l'Héritage Français. Lab work (3 hours a week) consisted of the Mueller tapes for review of construction and perfection of pronunciation. The appearance of a French acting company led to the reading and discussion of Sartre's Huis Clos and Ionesco's La Cantatrice Chauve. Students were required to attend the performances.

Twice a week portions of l'Héritage Français were read with the students in French, with French explanations for unfamiliar vocabulary and structural items.

The third class hour every week was a lecture in French, at native speed, given by a native Frenchwoman. Her subject matter served as a supplement to l'Héritage Français, emphasizing certain points in the book or filling in gaps. Her lectures were taped as she gave them and copies were placed in the lab for student review. Eventually they were examined on this material.

Every two weeks a subject was assigned to the students for original compositions. These were corrected and errors were pointed out with reference to the chapters of Intermediate Conversational French explaining the correct form.

3. Presentation, French 205-206, 1962-63

Basically the techniques described previously remained the same with some reorganization. The review of I.C.F. was not needed. Le Petit Prince and Les Jeux Sont Faits provided adequate material for structural drills. Class work on these texts followed the students' drills in the lab. One teacher went through each text line by line and explained in French new or difficult vocabulary and structural items. The third class hour was an explication de texte done in French on a much more sophisticated level. These explications were recorded in class and placed in the lab for student use. The same technique was used for the other reading material listed above.

Writing was taught by the answers to the taped questions on Le Petit Prince, the dictées in I.B.C., original composition or paraphrasing of lectures heard in class.

It should be emphasized that the techniques used were an effort to keep the students from thinking in English and from translating from one language to another. These same techniques were used even more rigorously in French 305-306.

4. French 205-206, Post-Experimental.

French 205-206 has been limited to students who took their first year at Tulane. Parallel "intermediate" courses (French 201-202) are conducted for freshmen entering from high schools where they have had, for the most part, the traditional grammar-translation preparation. It is hoped that 205-206 and 201-202 will eventually be so close in final testing that they can be mixed on the third level.

There are three class hours a week. Two hours of unmonitored lab a week are required and students are advised to do their studying with tapes in the lab.

French 205-206 reinforces and strengthens audio-lingual skills while concentrating on reading and writing. We have used different texts each year in an effort to find those which best suited the capabilities of students having had a year of audio-lingual work. This has always included an intermediate grammar review, mainly text, with accompanying tapes, and two or more readers. With respect to writing, the first semester is devoted to a systematic study of the forms, the second to free composition. In reading, during the first semester most materials are introduced in class, read aloud by the teacher with explanation (in French as much as possible) of new vocabulary and constructions, while students follow in in the text. The material covered in class is then assigned to be reviewed for the next class, when questions on it (in French for answers in French) will be asked. The students do no reading of new material outside of class until after midterm of the first semester.

In French 205-206 there are no formal labs (i.e. with an instructor). All tape work is done by the students on their own. This material has been of two types: grammar drills, and narrations with questions and answers drawn from the readers. There are three lab quizzes each semester and three written examinations.

C. The Third Level, 1962-1965.

1. Materials.

French 305-306 read a large number of the selections in Nelson and Oxenhandler's *Aspects of French Literature* (Appleton, Century, Crofts). Oral practice was maintained by the use of Edu-Tek, *French Linguatape* in the lab and class discussions taped by us. Written exercises were provided by the reading material.

2. Presentation, French 305-306.

Of the original beginners in French 105 the first year it was offered only ten were left to enroll in French 305-306.

Some had dropped out of college or transferred. Others had changed to programs not requiring a third year of language. Six of the original group had made such progress that they were allowed to spend their Junior year in France with the Tulane-Newcomb Junior Year in Paris. Some eight freshmen whose language skills matched those remaining were added to the group. Sixteen finished the year.

French 305-306 was intended as a one year literary masterpieces course. Because the orientation of student training had emphasized oral-aural performance, we decided to teach the plays in the anthology first. The two prose plays were read first according to the techniques described under French 205-206. Two days a week were spent on comprehension in French. The third day was a more sophisticated explication de texte and question session, recorded and put in the tape library. Students were eventually tested on this material in written and in oral forms. Occasional compositions were assigned from the questions provided by the authors. These compositions were checked, errors marked with reference to the appropriate grammatical explanation in Harris and Lévêque books or in the Edu-Tek tapes

After the four plays were read we then went to a choice of poetry. Our theory was that we should do the oral literature first. The plays and the poetry were available in the tape library. Eventually some of the prose selections were used in the second semester.

Three hours a week of unmonitored lab were required. Material was structure drills or class lectures. Lab tests were given twice each semester and a final oral exam came at the end of both semesters.

3. Post-Experimental Procedures.

Adaptation of experimental techniques into the normal courses of French did not begin seriously until September of 1963. The same anthology was used. Lab material varied from structure drills to literary recordings. Attempts at "explication de texte" and literary analysis were continued in French.

D. The Controls.

All normal first, second and third level courses in French were used as controls. Control and experimental sections took the same objective examination twice a year.

Some evolution took place as will be seen when an experimental technique was proved so valid that it would have been foolish not to adopt it into the control sections.

1. a) The Elementary Level, 1960-1962.

French 101-102 met for three hours a week while French 103-104 met for four. Each course required two additional hours of laboratory. The texts used were Harris and Lévêque, Basic Conversational French (Revised), Bellé and Haas, Promenades en France (Revised) and St.-Exupéry, Le Petit Prince. During the semester three units a week of Harris and Lévêque were covered in class with homework assignments. These were reinforced by the two hours of lab drill on all of the material in the three units. Class and lab were coordinated on a weekly rather than a daily basis because of schedule difficulties. Class procedure emphasized oral mastery of the conversation but memorization was not enforced. The exercises were done orally and in writing. Grammatical patterns were explained as they occurred in the conversations and drill was afforded by the grammar units.

Concurrently with the Harris and Lévêque, the Bellé and Haas reading text was continued to the end and then Le Petit Prince was read. The last two weeks of the semester were devoted exclusively to reading. Emphasis was on translation from French to English, but some oral drill was provided by the exercises at the end of Bellé and Haas.

These sections were given seven tests during the semester of the traditional grammat-translation-completion exercise type and they were tested in the laboratory at mid-semester and for the final examination on the work done in Harris and Lévêque.

b) Elementary Level, 1962-1964.

French 101-102, 103-104. As last year, the material for this course was the Harris and Lévêque Basic Conversational French (3rd edition). The techniques of scheduling and teaching of the 105-106 were transferred to the control sections with some modifications. Students met in class three hours a week, in lab two hours a week. An additional three hours a week of lab work, done at the students own convenience, were expected. Since testing was done orally, the students soon learned the wisdom of doing the lab work as well as the class work thoroughly. The scheduled class and lab hours met on alternate days so that there was contact between the student and the target language a minimum of five days per week. Class and lab work were completely integrated, so that each contact hour presented new material to be mastered. No duplication of class and lab material was allowed except as would be expected for normal overlearning and review. In both required lab hours and class hours the drills were done live and by machines.

The writing of the themes was done by first introducing the material on tape and written later. Quizzes were given in lab every week; midterm and final exams were also given in the lab. "En France" selections were read in class, using the technique of paraphrasing or acting out - - using English only when absolutely necessary. In the second semester, reading of *Orphee* and *l'Apollon de Bellac* was done in preparation for their presentation by a traveling French troupe. Attendance at the performances was required of the students, and a short test was administered on the material. The latter weeks of the second semester were spent on the *Petit Prince*, using the same reading techniques and drill material prepared for the 105-106. A sample weekly schedule will be found in Appendix IV.

c) Elementary Level, 1964-1965.

French 101-102. The happy appearance of Desberg and Kenan's *Modern French* made another revision of the syllabus necessary.

French 101-102 meets five hours a week, three in class and two in supervised lab. In the fall of 1964 we adopted *Modern French* by Desberg and Kenan. The average student must spend about three hours each week working with the tapes by himself.

There is very little difference between class and lab content and teaching techniques. Both spend some time each period on dialog or supplimentary sentence memorization and on grammar drills. Conversation exercises and oral composition are done exclusively in class. Teaching time is used primarily to introduce new material and to drill it sufficiently that the student can complete the mastery of it on his own using library tapes.

A recorded quiz is given after each unit. Each quiz consists of three parts, "Dialog and Vocabulary", "Grammar" and"Oral Composition".

The first semester is almost exclusively audio-lingual, except for a few spelling lessons found in the test and short readings (also in the text, and mainly recombination material) at the end of each unit beginning with Unit 6.

In the second semester they have additional spelling lessons and begin having written tests over the grammatical material covered in the first semester, i.e. Units 1-10 of the text. We have written supplementary conversation exercises for Units 11-19, as there are none in the text.

2. Second Level.

a) French 201-202. 1960-1963.

This is a traditional intermediate course, meeting three hours a week with one hour of lab. Course material is a grammar review and reading-translation from French to English. Lab material is drawn from both sources. Most students enter this course as freshmen after two years of high school French. After discontinuing 211-212 low ranking freshmen who had three years of high school French were also placed here. Because of the disparity of preparation the group remains heterogeneous.

b) French 211-212. This was a freshman course for students with three or more units in High School French. It included grammar review and an introduction to literature. It met in lecture-recitations three hous a week and one hour a week of lab was required. The lab material was drawn from the review grammar.

This course was discontinued after the 1960-1961 session. Frechmen having three years of High School French went into 201 or 311, depending on their placement test scores.

c) Modification, 1963-1965.

French 201-202 is the course for most freshmen. 205-206 is the course for students who had their first year of French at Tulane. 201-202 is organized to put the maximum emphasis on audio-lingual training, since the students have been subjected mainly to the old grammar-translation courses.

Materials used included Harris and Lévêque: Intermediate French Conversation along with the accompanying tapes for lab drill. Reading was from Gide, Sartre, Camus, Anouilh, anthologies and civilization books. The Harris and Lévêque was dropped in favor of Dow: Review in French. With the appearance of Modern French of Desberg and Kenan, its tapes were used for lab.

3. Third Level. 1960-1965.

a) French 311-312. (For a time numbered as 301-302 in the college of Arts and Sciences.)

This is the Survey course in French Literature using an anthology of prose and poetry. No lab work is required. Since 1961-1962 there has been an increasing use of French for lectures and reading for comprehension in the language rather than translation.

b) French 315-316. This is a conventional conversation course taught in three lecture-recitations per week. No lab is required.

c) French 325-326. This course is designed primarily to prepare sophomore candidates for the Junior Year Abroad program to function well in a French university. It has three lecture-recitation hours per week and three laboratory hours (one supervised, two unmonitored). The content includes civilization material and grammar-composition as well as intensive oral drill. This course is elective; good conventional preparation and strong motivation are combined in the typical student.

4. Off-Semester Courses.

These are the same as the courses described above except for 311-312, 315-316, and 325-326. They begin the second semester and run through the first semester of the following term. They are populated, for the most part, by failures in the normally scheduled courses. Lower achievement is usually found.

IV RESULTS

A. Preliminary Remarks

For the project to be meaningful, it called for experimentally derived data bearing primarily on the questions listed below, each with a suggestion of the finding which we develop at length in this section of the report.

1. Can the traditional French and Spanish college program be restructured to take maximum advantage of a strictly audio-lingual sequence of instruction? (Yes)

2. Can majors be produced in such a program that will achieve at least minimal ratings on the MLA Proficiency Tests? (Yes)

3. Is there a difference in learning as between monitored and un-monitored laboratory work on the elementary level? (Yes The students who had wholly monitored instruction tested regularly higher, although the difference may lack the statistical significance that would justify the additional staff time that it requires.)

4. If successful in the experimental form, can the restructured program be adapted to the normal college situation? (Yes, . with regard to those who start the language as freshmen; some information is also provided for the perhaps larger problem of the student who continues a language started in high school, although

this was beyond the purview of the contract.)

The major preoccupation was Question 1. In concrete terms we were trying to train, teach, and lead students to exhibit the characteristics found below in column 2 as distinct from the more familiar traits of column 3.

1. Skill, area	2. Experimentals	3. Controls
a. Listening	High level of ability in all students, required to complete program.	Desirable, but not indispensable to completion of program.
b. Speaking	High level of ability in all students, required to complete program.	Desirable but not indispensable to completion of program.
c. Reading	Product of transition from listening and speaking, analogous to native process of acquisition with minimal or no intervention of English.	Translation to English with hope that in superior students English would give way gradually to direct apprehension of content.
d. Writing	Product of transition from speaking and reading with minimal or no intervention of English.	Translation from English with hope that the superior student would eventually abandon the intermediate step of English.
e. Literature	Direct perception of values in circumstances comparable to those experienced by natives of the target language.	Perception of values in bi-cultural circumstances that in last analysis rest on translation.
f. Translation	Little if any ability. Attitude that translation is a specialized skill to be learned by competent bi-linguals.	Much training in equivalences and techniques, quality of professional translator attained by few.

By the terms of the contract we were to measure our results semester by semester with the CEEB tests in reading and listening comprehension and, at the end of the project, with the MLA Proficiency Examinations for Advanced Students and Teachers. It was further provided that we should substitute the MLA-Coop tests for the CEEB as soon as the former were available. The MLA-Coop did not appear during the span of the contract and are reflected in this report only in the post-contract results of May, 1965.

Certain inadequacies of this testing program were evident at the outset, and others appeared with time and experience. The lack of a speaking test was the immediately obvious gap in a project designed to begin with listening and speaking. Dr. George W. Wilkins started in the fall of 1960 the development of "oral production" tests which, during the three years of the contract he refined through four versoins with the collaboration of our psychological consultant, Dr. E. Lee Hoffman. These tests, designated "UOP-I, II, III, IV," in French and Spanish, produced increasingly meaningful measurements that form a significant part of our test data. (For description, see Appendix II.)

We became aware of another dificiency that we were not able to remedy. The CEEB tests were naturally based on years of teaching practices among which one took for granted extensive training in English-French and English-Spanish equivalences, assuming a translation-orientation possessed by our controls, but which we were careful not to teach the subjects of the experiment. Thus superiority of the latter in the CEEB reading and listening tests probably represents a greater real difference than would be indicated by the statistics. Had the MLA-Coop tests been available, or had we devised tests of that type, the handicap would have merely shifted to the controls. Since we could conceive no practical and equitable middle course, we felt that if we were successful our results would have more persuasive force leaving the advantage with the controls.

Thus with tests of three types, plus finally the MLA Proficiency Examinations, we gathered data at the ends of six semesters, and thereafter, with tests of two types, in May of the two subsequent years. The results, taking into account more than 15,600 individual scores in the contract peroid alone, are presented in tables and charts in two ways.

1. The "Horizontal" analysis. Here the data are presented as gathered, semester by semester. Experimentals are compared with all other students in French and Spanish as of single moments without reference to previous or subsequent performance, and without distinction as to those who started in Tulane-Newcomb versus those who entered at various levels from high school preparation.

2. The "Vertical Trace". Here the performance of Tulane-Newcomb starters only is traced through three sequences of three years each in reading and listening comprehension: 1960-63, 1961-64, and 1962-65. The speaking tests are also traced, but to the end of the contract period only and without the elimination of the high school starters from the upper levels.

Each section of data is followed by pertinent observations of the investigators.

B. The Data

1. Horizontal Comparisons, 1960-1963.

The results presented in this section are for the statistical analysis of scores obtained at the end of each of six semesters of the contract period on College Board tests of foreign language reading and listening comprehension and on locally-developed tests of production.

The results of the first semester are presented in graphic form only, thereafter each chart is preceded by a table that refers to a particular French or Spanish test. The tables give the number of students in each course taking the test, their mean test performance, and the standard deviation for the distribution of scores in that course. The results are presented graphically in figures which are numbered the same as the corresponding tables.

On the graphical representations the groups are located in order of magnitude of the group means. Off-semester courses are omitted from the graphs after 1960-61. The single vertical line for each course represents the range of scores from two standard deviation units below the mean to two standard deviation units above the mean. The vertical bar represents an interval which has approximately 95 chances in 100 of including the true mean for the course population represented by the present sample.

Mean test score differences among the courses were evaluated for each test with a simple analysis of variance. The hypothesis of no difference in mean test scores was rejected at the .01 level of significance for all tests. Beyond this general conclusion of significant differences among the course means, the individual comparisons among the means were analysed using Kramer's extension of Duncan's New Multiple Range Test[1] for group means based on unequal numbers. This test was used to determine if there were significant differences between some of the means and not between others. For this test studentized ranges with a significance level of .05 were used.

The complete results of the tests of significance for the various comparisons are summarized by the underscoring at the bottom of the figures. Any two means *underscored* by the same line do *not* differ significantly. Any two means *not underscored* by the same line *do* differ significantly.

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[1] For a description of this procedure see Biometrics, Vol. [illegible], 1956, pp. 307-310.

Figure 1.[illegible]

FRENCH READING TEST EPL1

January 1961

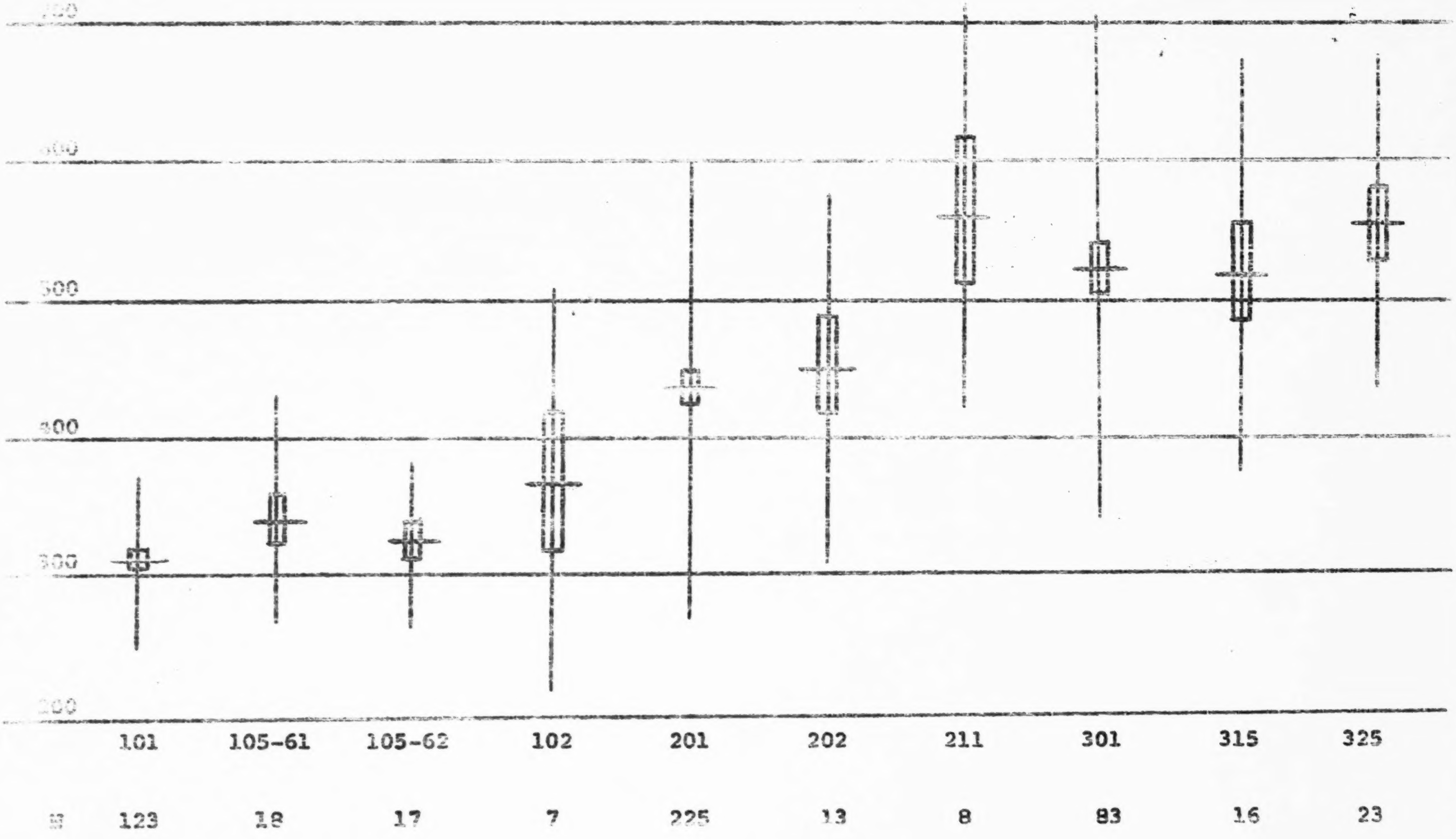


Table 1.2

FRENCH READING TEST EPL 1

May, 1961

Course	Number Tested	Mean	Standard Deviation
101	15	330.53	53.51
102	102	395.68	63.58
106-61	15	427.73	54.75
106-62	18	371.44	45.85
201	20	425.05	94.40
202	189	502.93	68.83
212	26	561.15	66.91
302	85	545.02	87.19
316	10	564.10	69.24
326	37	591.41	60.68
Total	517	484.36	98.79

Figure 1.2

FRENCH READING TEST EPL1

May 1961

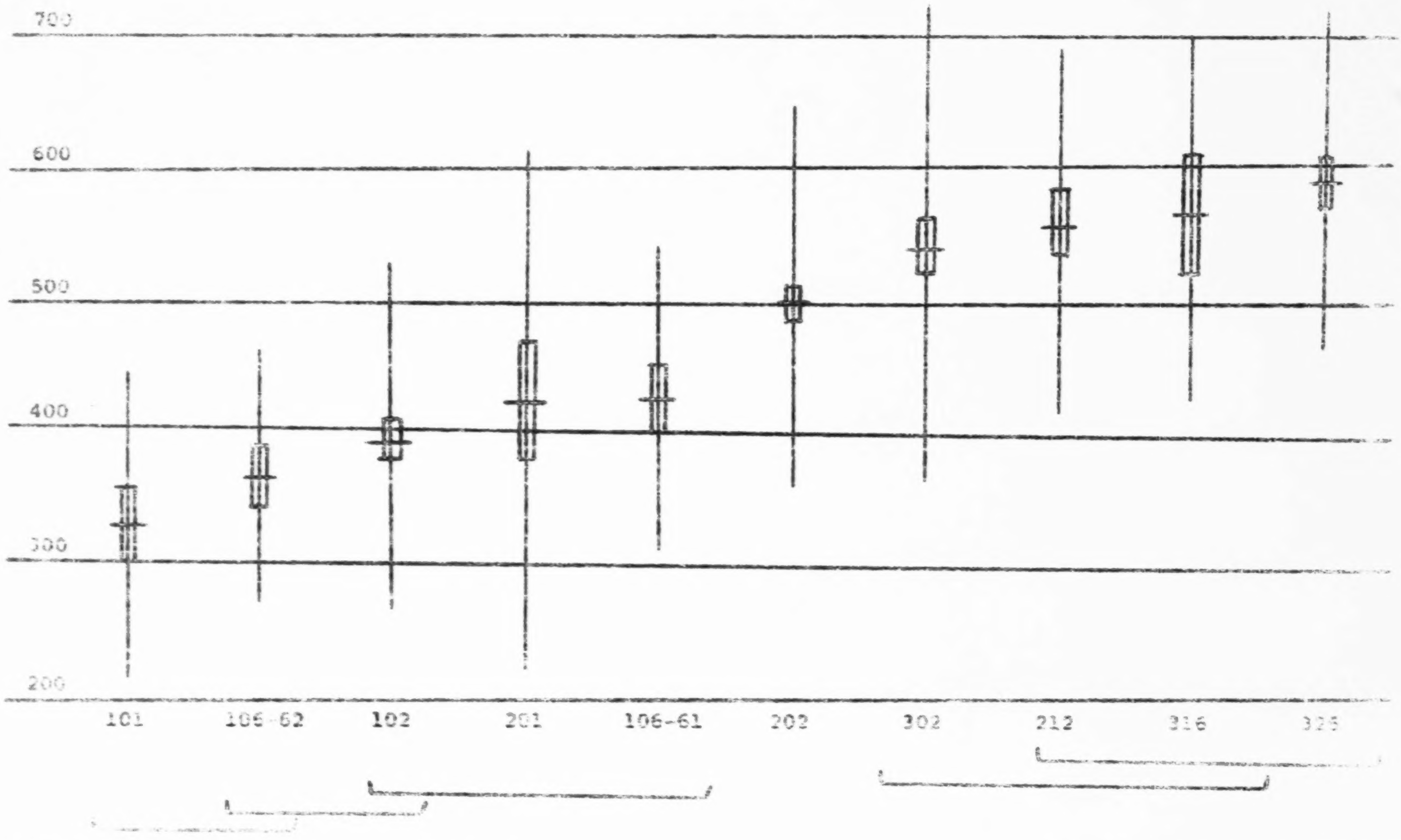


TABLE 1.3

FRENCH READING TEST BPL2

JANUARY 1962

Course	Number Tested	Mean	Standard Deviation
101	106	375.37	34.34
102	8	440.88	54.78
105-61	17	383.53	56.06
105-62	16	376.75	41.03
201	210	481.63	59.99
202	6	469.33	82.29
205	26	513.54	56.16
301	116	559.21	82.64
315	14	539.93	86.90
325	40	586.13	84.97
Total	559	481.23	94.75

Figure 1.3

FRENCH READING TEST BPL2

January 1962

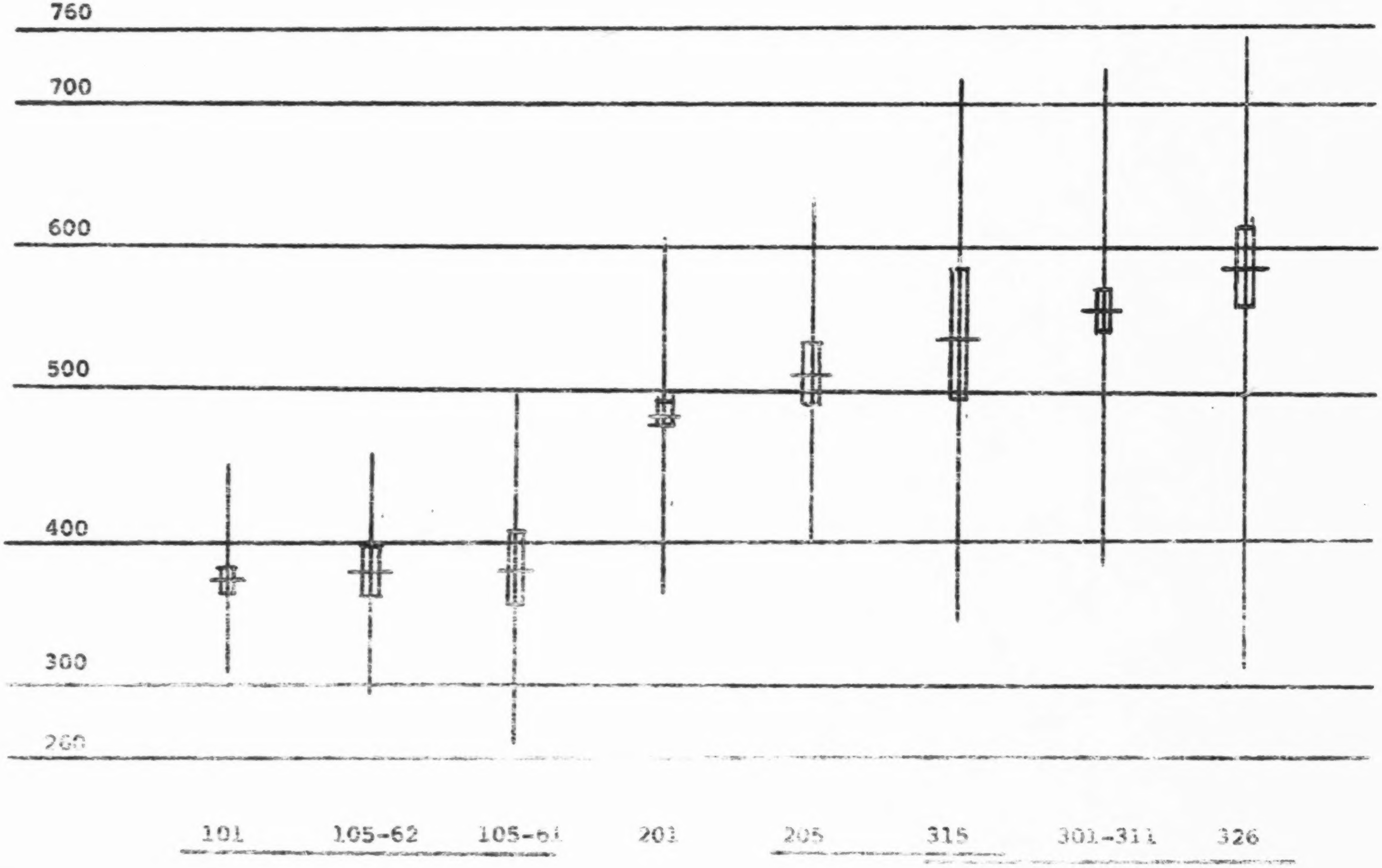


TABLE 1.4

FRENCH READING TEST EPL1

MAY, 1962

Course	Number Tested	Mean	Standard Deviation
101	14	305.71	28.41
102	88	386.43	60.33
106-61	15	386.67	72.05
106-62	12	379.42	55.15
201	12	417.08	67.20
202	200	479.90	66.70
206	23	472.91	58.51
302	55	515.22	86.48
312	57	585.44	60.86
316	11	543.27	108.17
326	31	602.90	61.75
Total	518	476.59	98.25

Figure 1.4

FRENCH READING TEST FPL1

May 1962

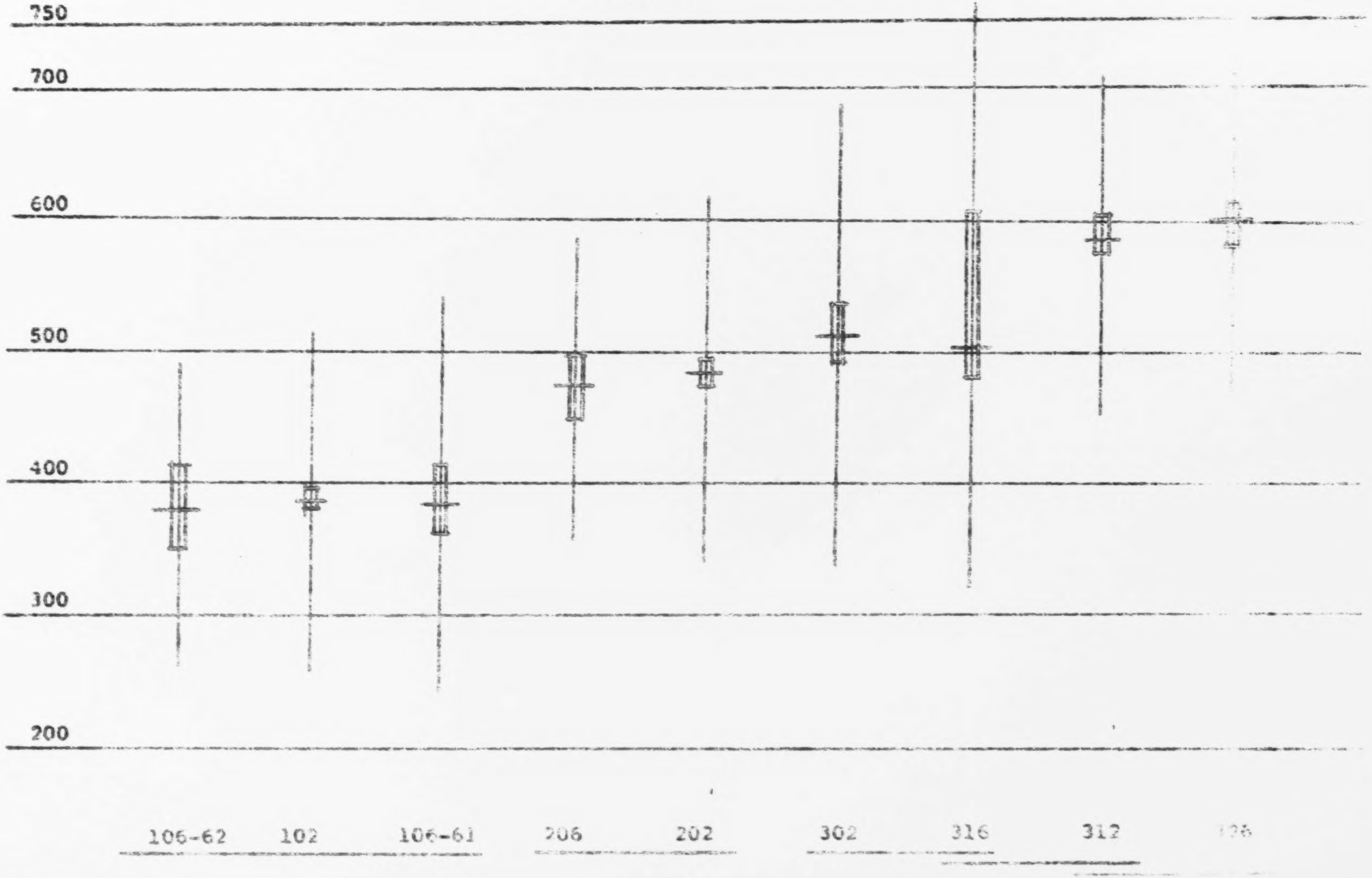


TABLE 1.5

FRENCH READING TEST KPL1

JANUARY 1963

Course	Number Tested	Mean	Standard Deviation
101	101	339.31	56.62
102	7	367.57	49.27
105-61	16	336.63	32.72
105-62	15	331.73	39.95
201	155	454.19	76.44
202	12	489.75	67.27
205	17	450.29	83.92
301	146	537.88	85.17
305	16	571.75	98.72
315	14	563.88	58.49
325	39	590.36	62.39

Figure 1.5
FRENCH READING TEST FPL1
January 1963

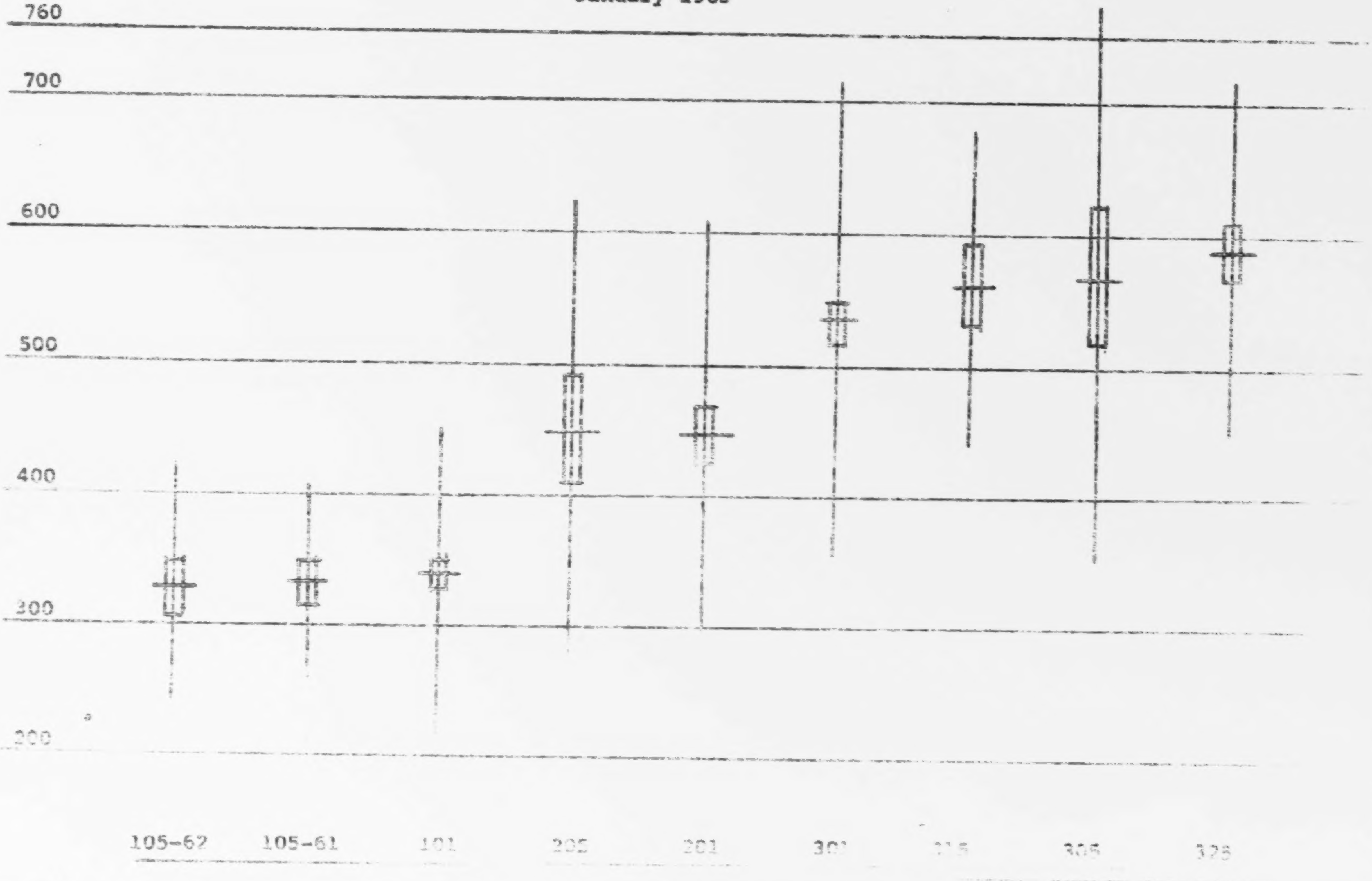


TABLE 1.6

FRENCH READING TEST KFL2

May 1963

Course	Number Tested	Mean	Standard Deviation
101	10	344.70	60.20
102	73	402.48	98.32
106-61	14	373.86	47.71
106-62	13	340.31	51.27
201	11	397.00	70.63
202	126	518.74	87.47
206	18	455.72	100.97
302	133	568.54	89.77
306	13	588.65	95.92
316	13	617.69	83.48
326	27	650.48	47.22

Figure 1.6
FRENCH READING TEST KPL2
May 1963

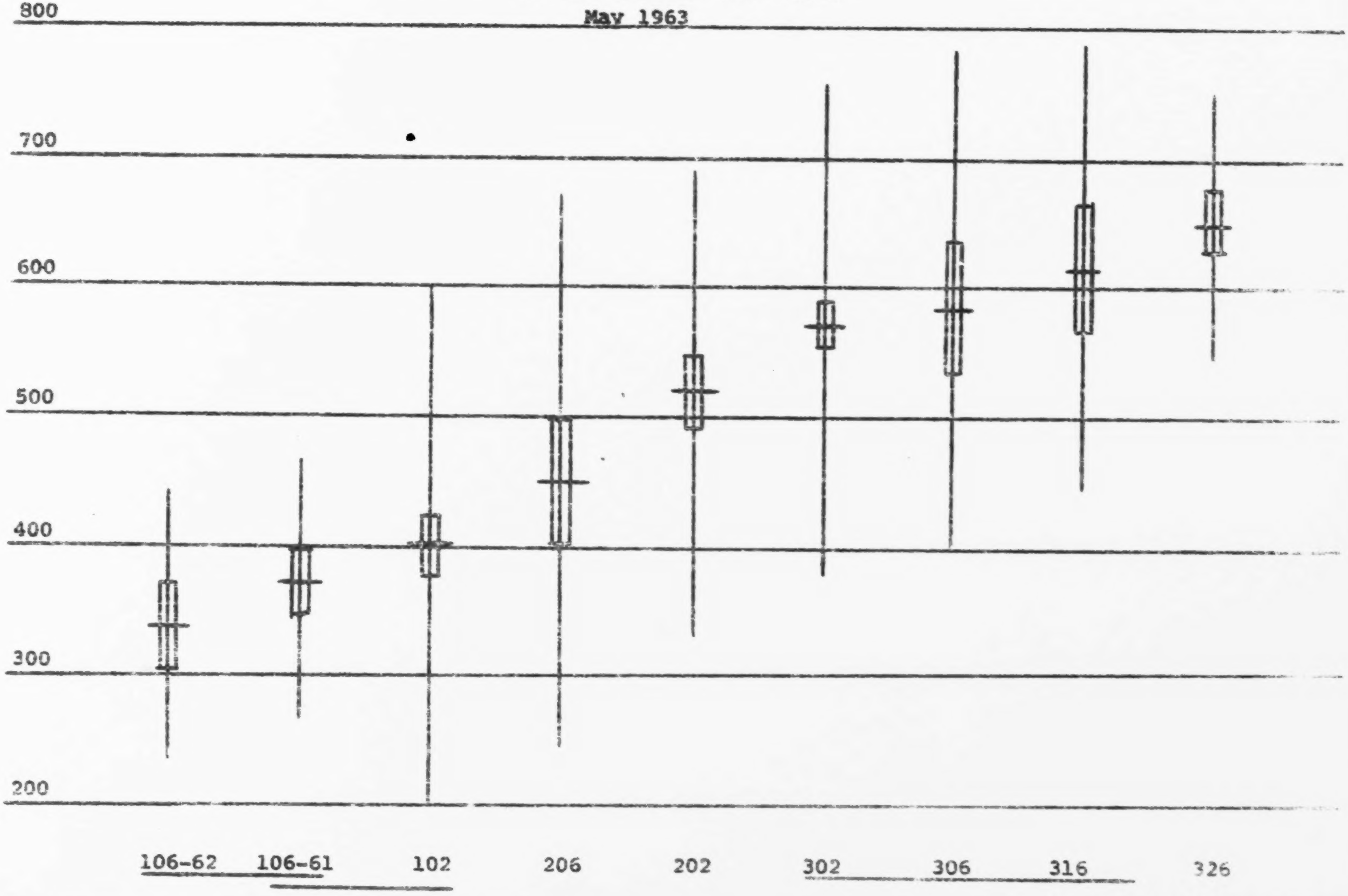


Figure 1.7
FRENCH LISTENING TEST MLA
January 1961

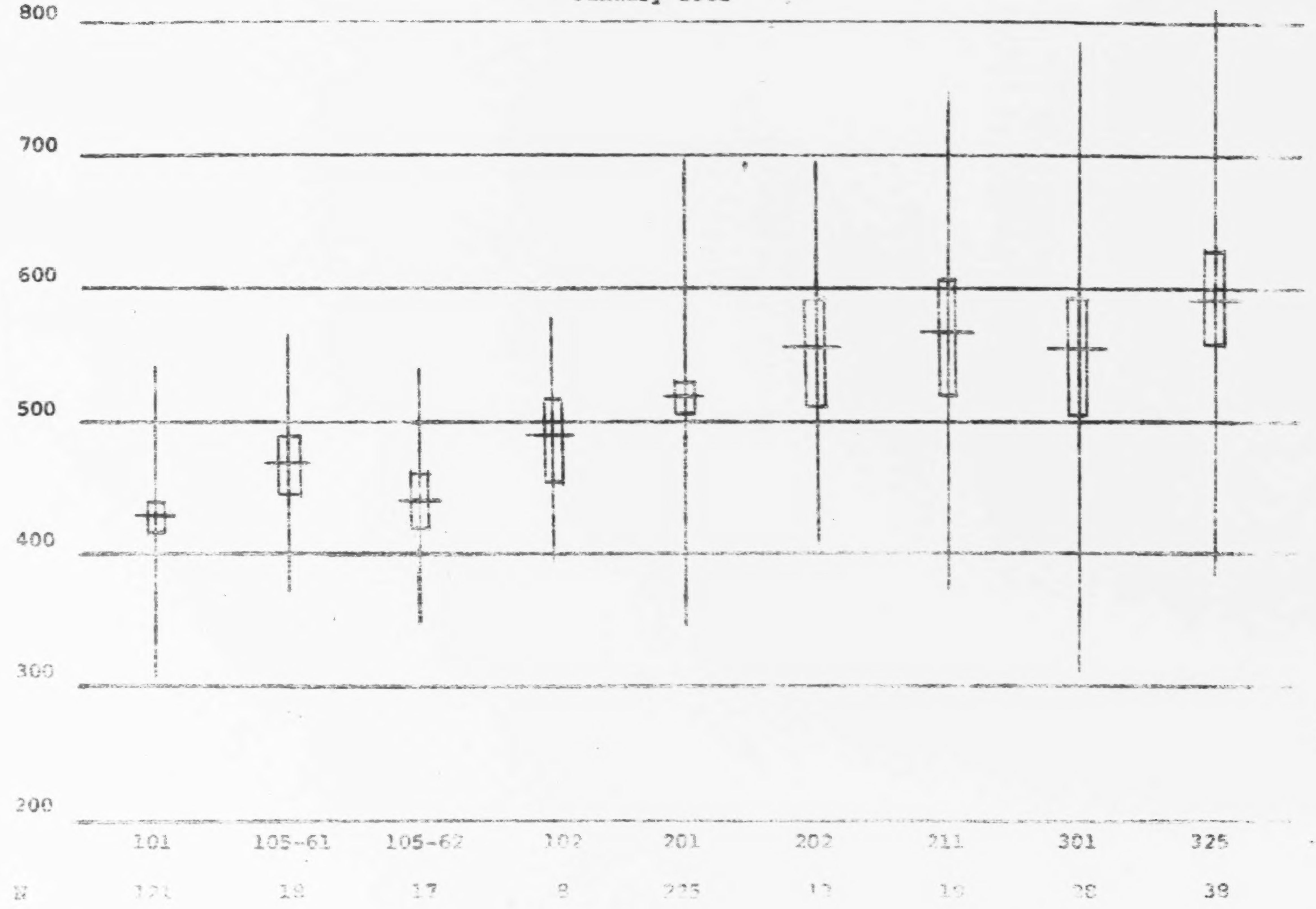


TABLE 1.8

FRENCH LISTENING TEST IBA

MAY 1961

Course	Number Tested	Mean	Standard Deviation
101	15	401.20	67.05
102	102	454.48	83.40
106-61	15	526.40	42.66
106-62	18	486.72	63.91
201	21	494.29	106.43
202	189	524.78	84.21
212	26	595.69	76.74
302	82	541.07	104.92
316	10	538.30	63.39
326	37	602.41	107.79
Total	515	516.74	98.98

Figure 1.8
FRENCH LISTENING TEST IRA
May 1961

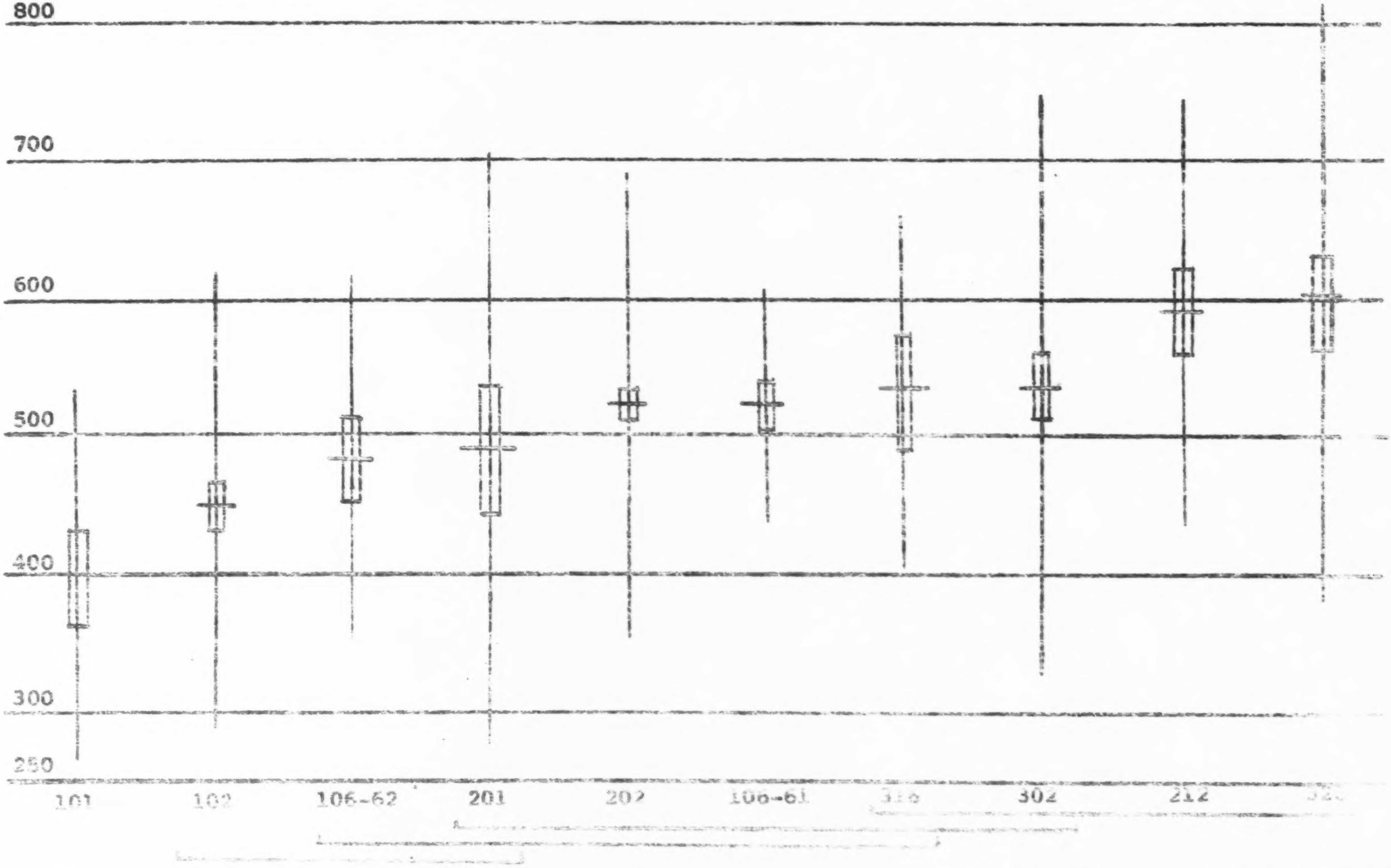


TABLE 1.9

FRENCH LISTENING TEST JBA

JANUARY 1962

Course	Number Tested	Mean	Standard Deviation
101	106	453.48	51.99
102	8	493.38	40.98
105-61	17	470.00	53.58
105-62	15	456.53	50.22
201	212	433.86	59.97
202	6	515.33	144.41
205	26	462.96	50.09
301	118	552.18	82.91
315	14	555.00	74.82
325	38	589.45	94.00
Total	560	506.88	78.12

Figure 1.9
FRENCH LISTENING TEST JBA
January 1962

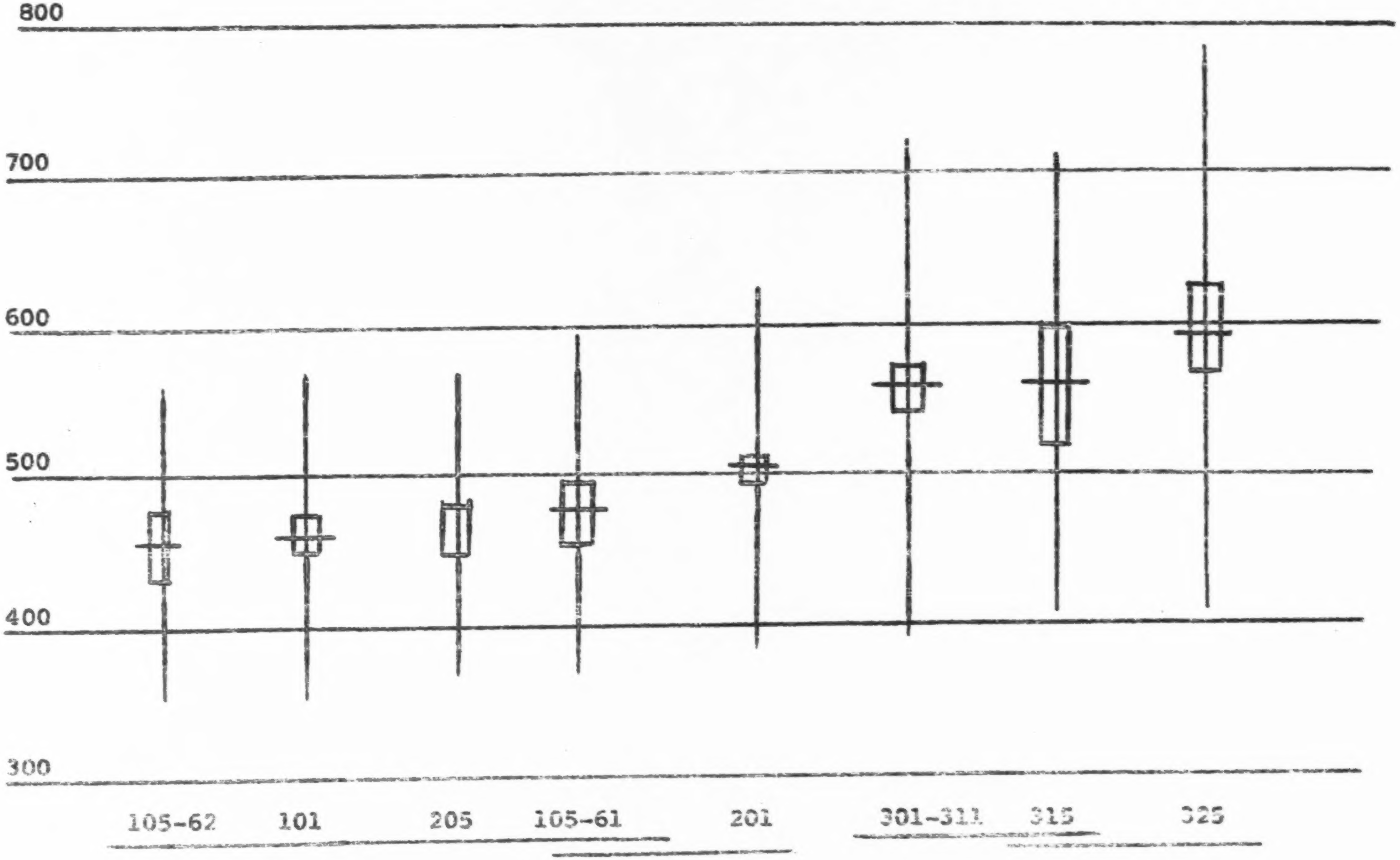


TABLE 1.10

FRENCH LISTENING TEST MA

MAY 1962

Course	Number Tested	Mean	Standard Deviation
101	14	460.93	41.49
102	89	478.65	48.43
106-61	16	522.75	90.24
106-62	12	495.50	74.30
201	11	545.73	84.83
202	199	512.22	67.73
206	23	534.48	55.63
302	53	548.70	97.71
312	57	603.18	89.37
316	12	605.25	113.52
326	31	646.90	115.82
Total	517	531.25	90.17

Figure 1.10

FRENCH LISTENING TEST JBA

May 1962

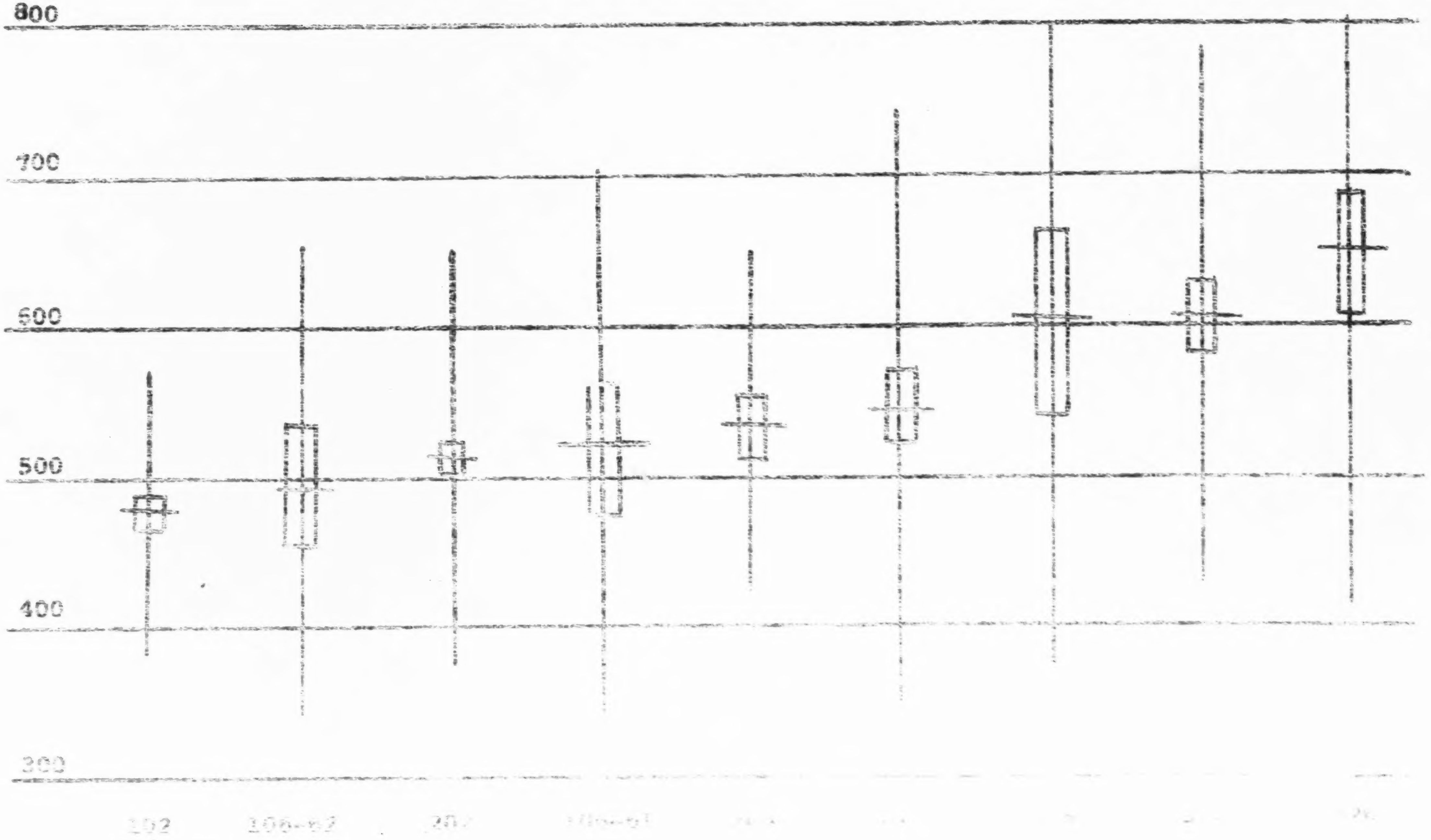


TABLE 1.11

FRENCH LISTENING TEST KFL1

JANUARY 1963

Course	Number Tested	Mean	Standard Deviation
101	101	423.65	65.55
102	7	470.86	70.22
105-61	16	434.31	50.65
105-62	15	444.93	83.15
201	155	482.17	70.63
202	12	511.75	76.68
205	17	515.35	69.41
301	146	564.16	103.91
305	16	627.56	98.27
315	14	612.14	92.60
325	39	616.44	86.40

Figure 1.11

FRENCH LISTENING TEST KFL1

January 1963

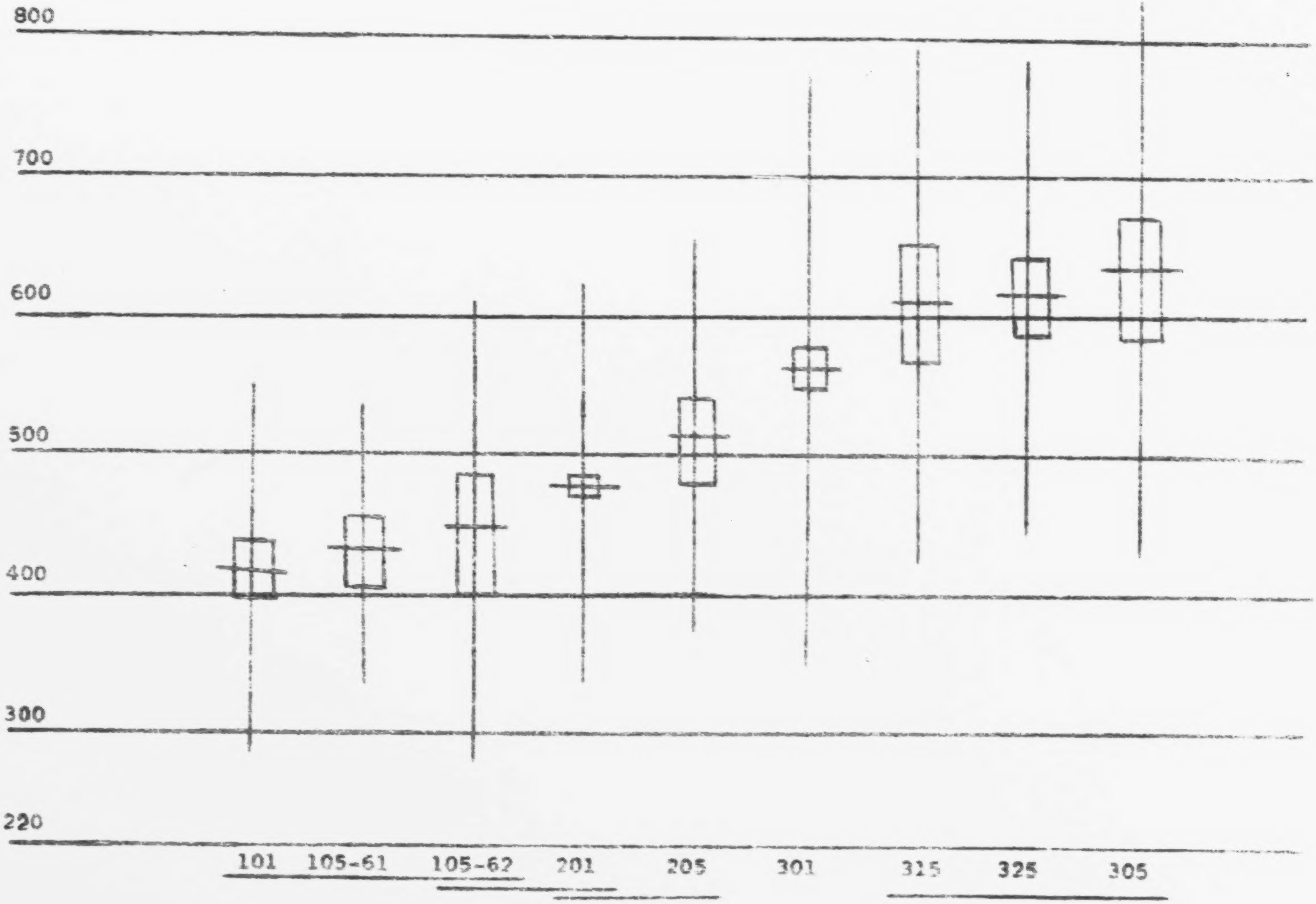


Table 1.12

FRENCH LISTENING TEST [illegible]

May 1963

Course	Number Tested	Mean	Standard Deviation
101	10	457.10	56.50
102	73	481.37	72.44
106-61	14	467.14	51.66
106-62	13	448.62	29.54
201	[illegible]	470.64	47.92
202	126	491.05	65.50
206	18	535.44	61.16
302	231	556.86	96.28
306	13	636.08	80.76
316	23	645.3[illegible]	104.48
326	27	652.78	91.83

Figure 1 12
FRENCH LISTENING TEST KPL2
May 1963

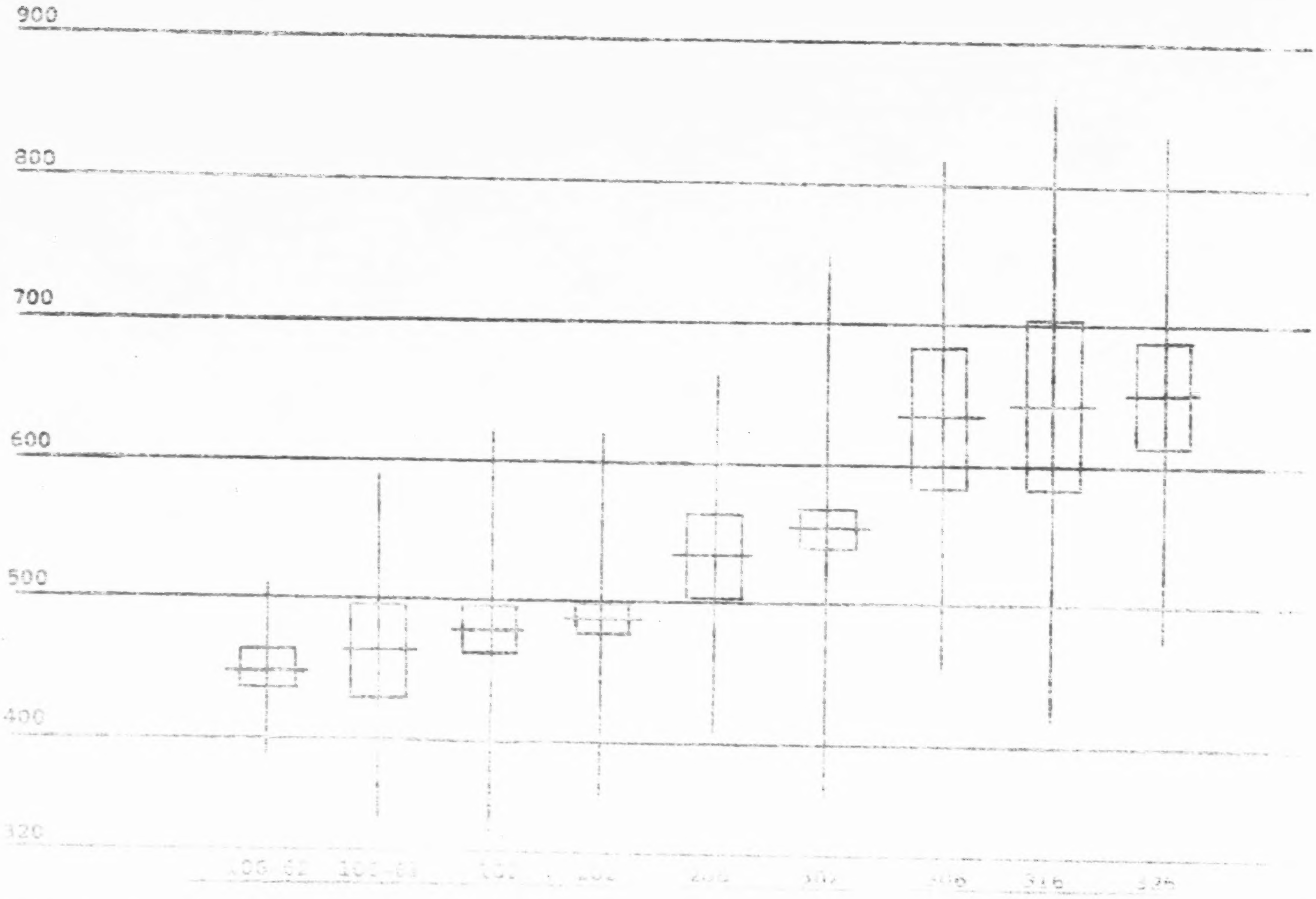


Figure 1.13
FRENCH ORAL TEST UOP-I
January 1961

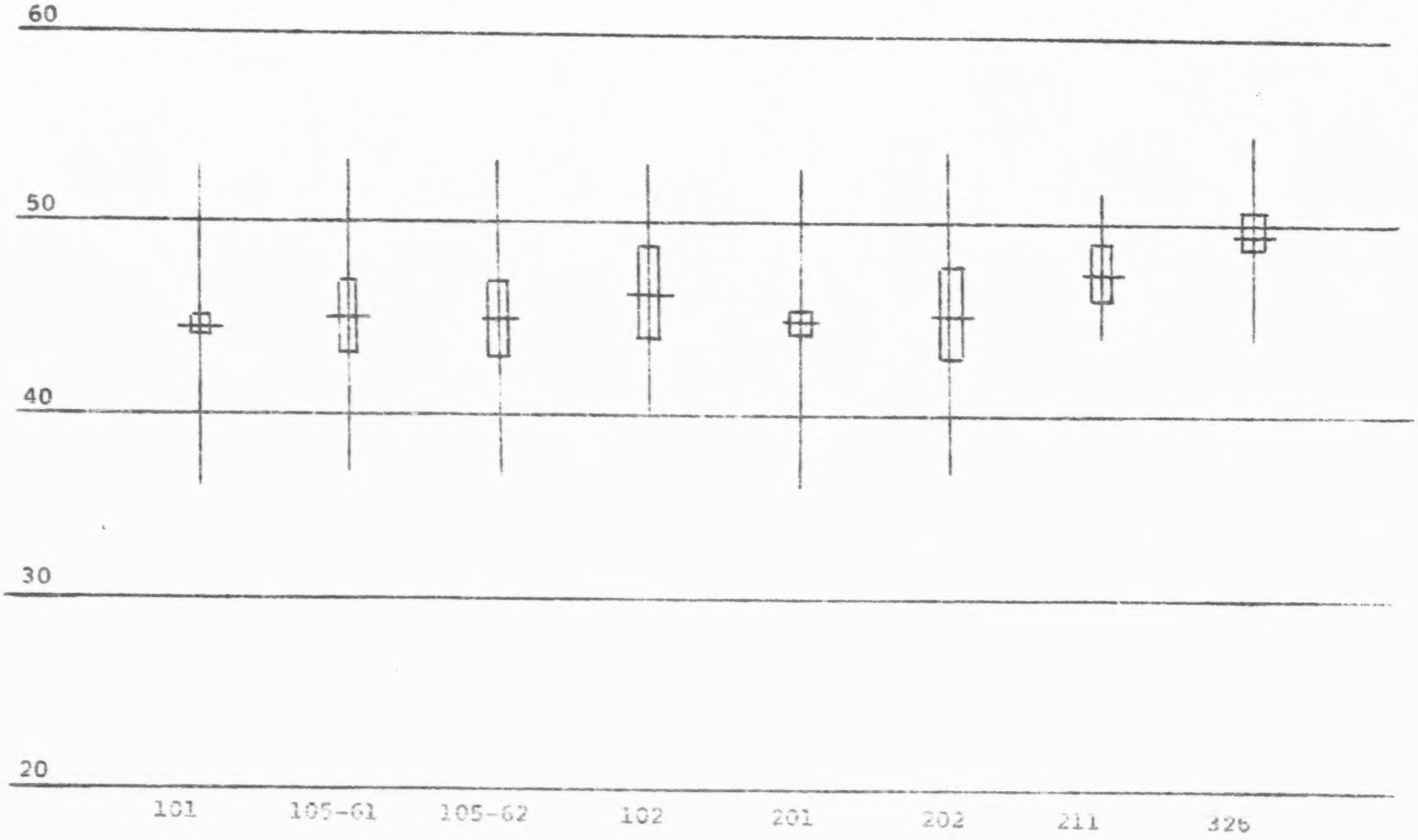


Table 1.14

FRENCH ORAL PRODUCTION TEST FOP-II

May 1961

Course	Number Tested	Mean	Standard Deviation
101	15	56.40	5.25
102	100	59.22	6.41
106-61	15	62.27	4.28
106-62	18	61.78	7.17
201	19	58.74	5.85
202	184	60.14	5.17
212	25	61.48	6.02
302	22	62.00	5.04
326	31	61.42	6.27
Total	429	60.14	5.78

Figure 1.14
FRENCH ORAL PRODUCTION TEST UOP-II
May 1961

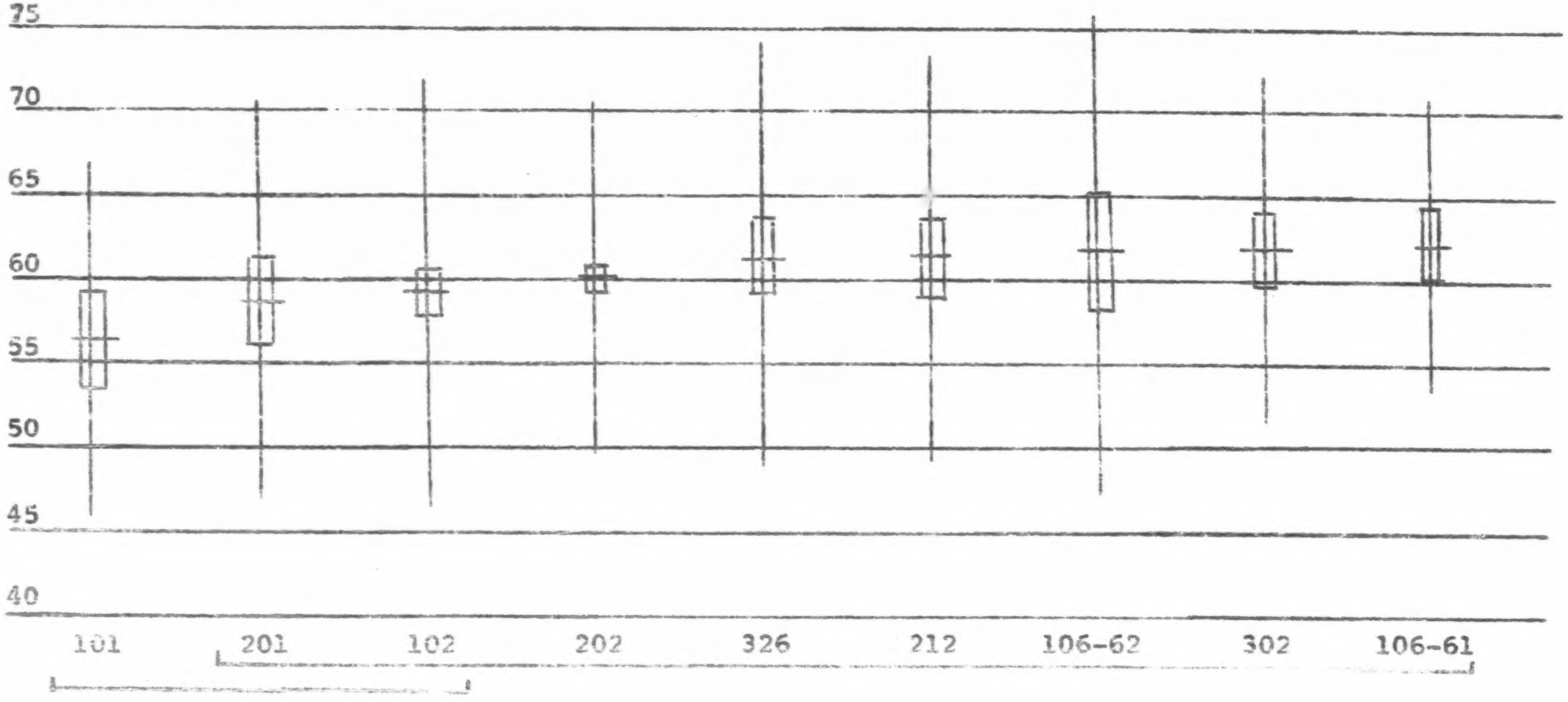


Table 1.15

FRENCH ORAL PRODUCTION TEST UOP-III

January 1962

Course	Number Tested	Mean	Standard Deviation
101	102	41.57	8.23
102	8	35.38	22.17
105-61	16	53.88	3.36
105-62	15	54.47	2.85
201	164	46.05	6.12
202	6	47.83	5.00
205	23	54.74	4.62
301	103	49.10	5.46
315	12	52.58	5.21
325	37	55.00	5.93
Total	486	47.37	8.15

Figure 1.15

FRENCH ORAL PRODUCTION TEST UOP-III

January 1962

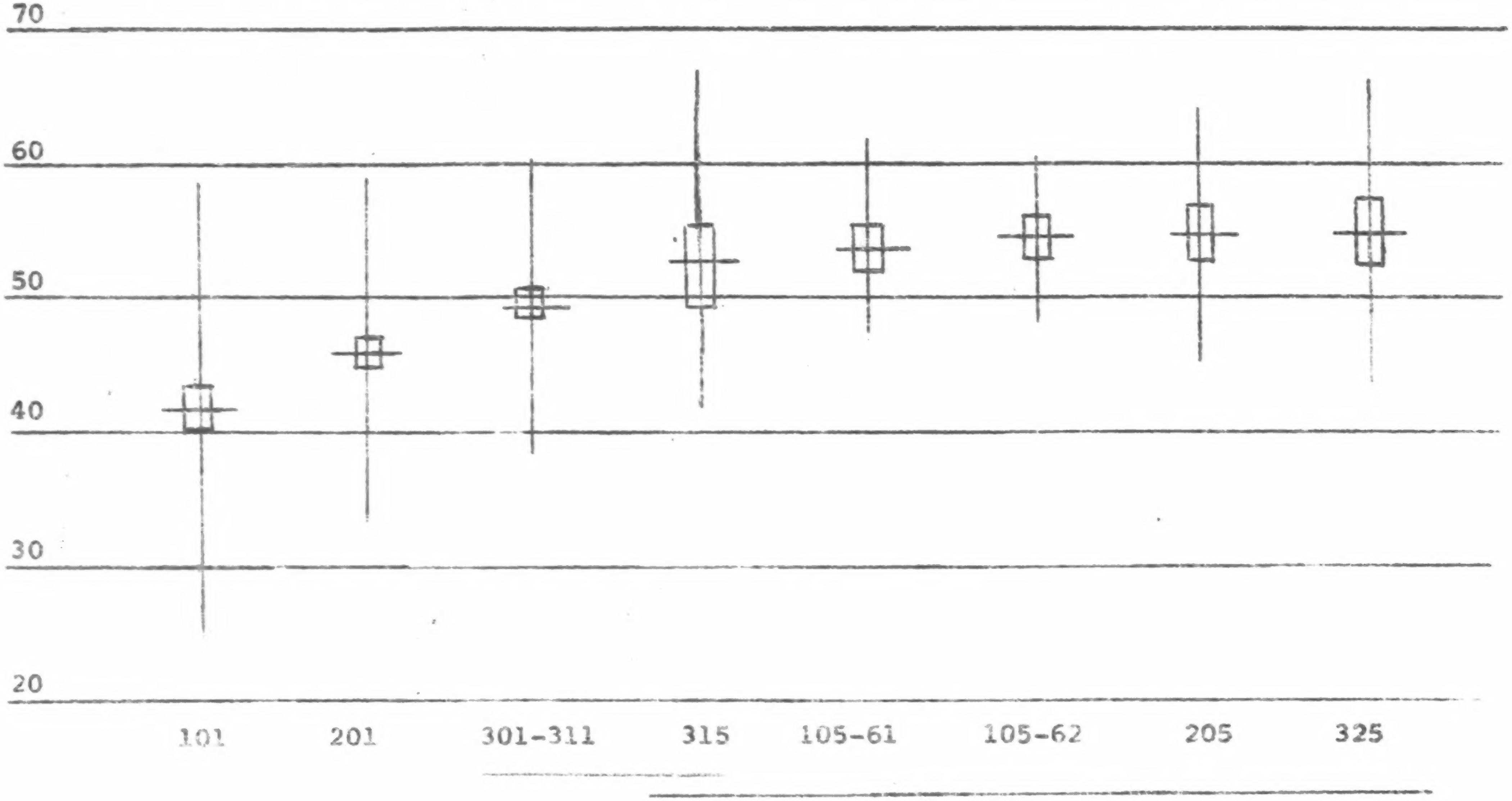


Table 1.16

FRENCH ORAL PRODUCTION TEST COP-III

May 1962

Course	Number Tested	Mean	Standard Deviation
101	13	51.08	11.56
102	49	52.73	12.40
106-61	14	70.86	14.18
106-62	13	60.92	13.77
201	13	58.08	15.24
202	40	59.72	12.09
206	19	75.16	10.96
302	20	49.10	13.27
312	22	66.41	16.26
316	16	67.12	18.51
326	26	75.96	15.62

Figure 1.16

FRENCH ORAL PRODUCTION TEST UOP-III

May 1962

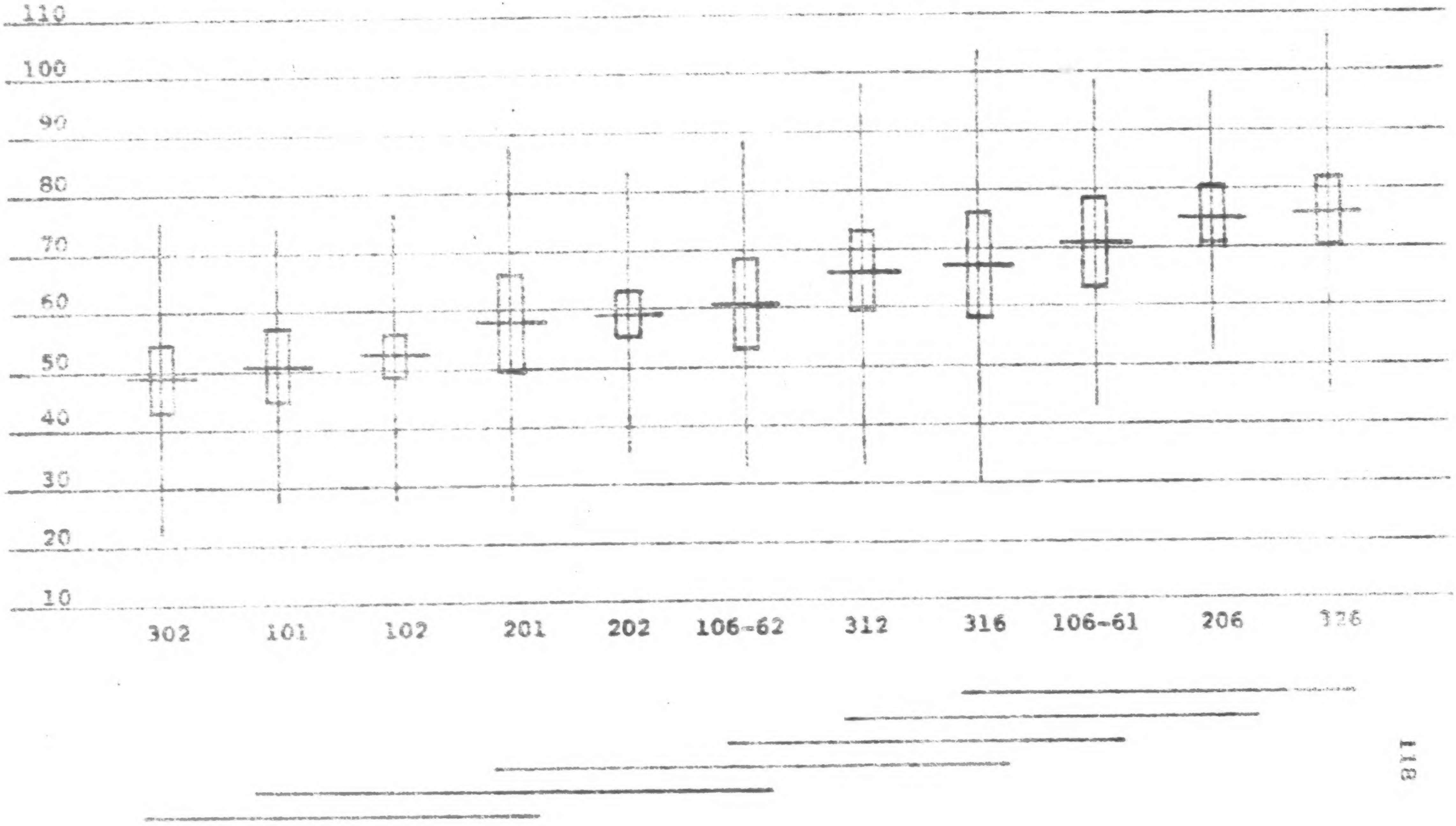


Table 1.17

FRENCH ORAL PRODUCTION TEST UOP-IV

January 1963

Course	Number Tested	Mean	Standard Deviation
101	33	27.91	5.40
102	6	30.67	5.43
105-61	15	30.07	4.13
105-62	15	28.67	4.91
201	29	31.52	6.54
202	9	31.00	5.68
205	17	39.71	4.40
301	48	30.15	6.80
305	15	41.07	4.51
315	13	34.85	5.87
325	23	36.82	5.42

Figure 1.17

FRENCH ORAL PRODUCTION TEST UOP-IV

January 1963

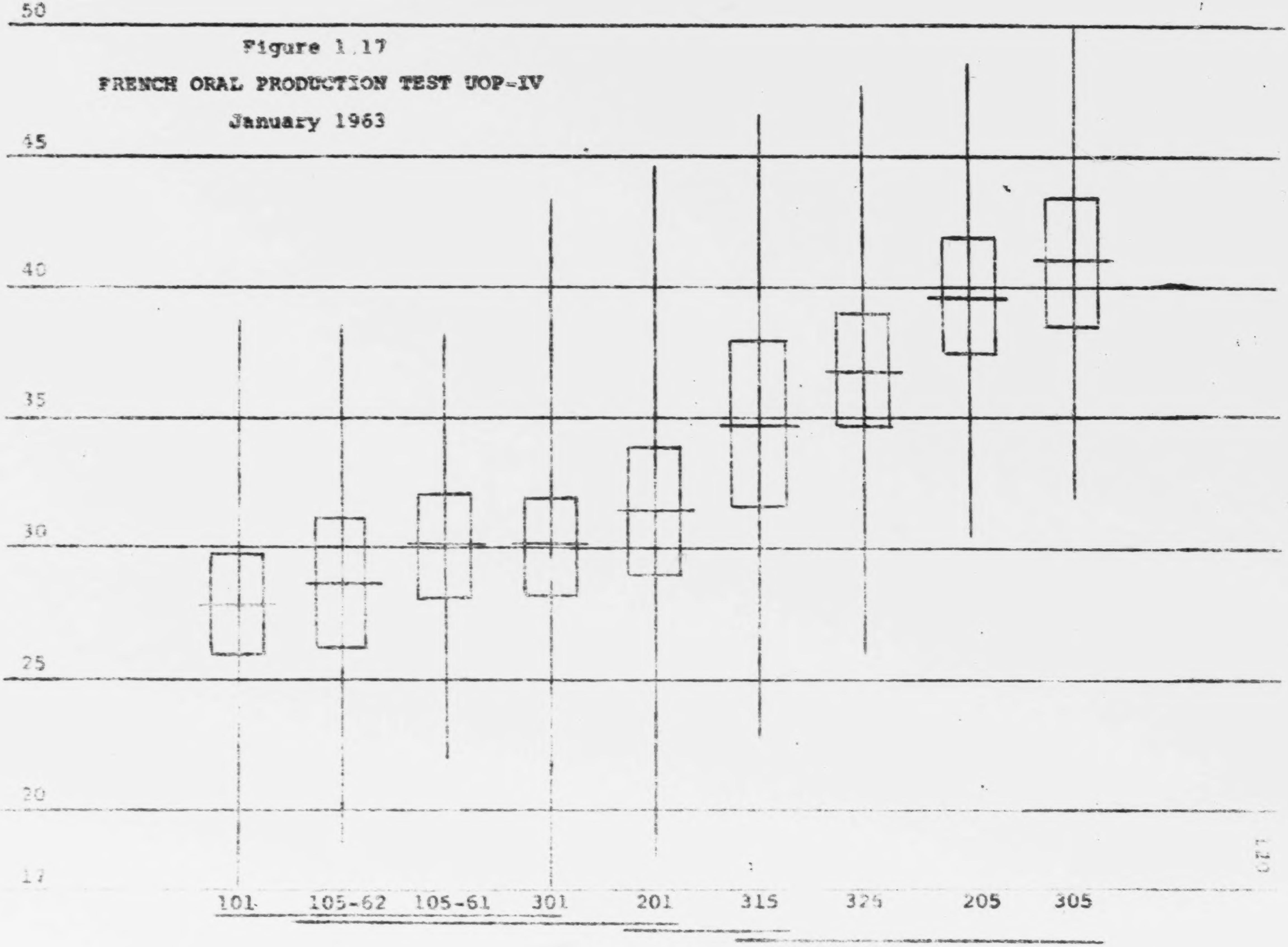


Table 1.18

FRENCH ORAL PRODUCTION TEST UOP-IV

May 1963

Course	Number Tested	Mean	Standard Deviation
107	22	31.41	5.24
106-61	12	36.42	3.09
106-62	12	31.67	5.99
201	8	32.63	3.34
202	39	33.59	4.96
206	18	40.72	4.21
302	33	33.55	6.94
306	13	43.6	4.44
316	13	41.00	4.24
326	26	38.08	5.04

Figure 1.18
FRENCH ORAL PRODUCTION TEST UOP-IV
May 1963

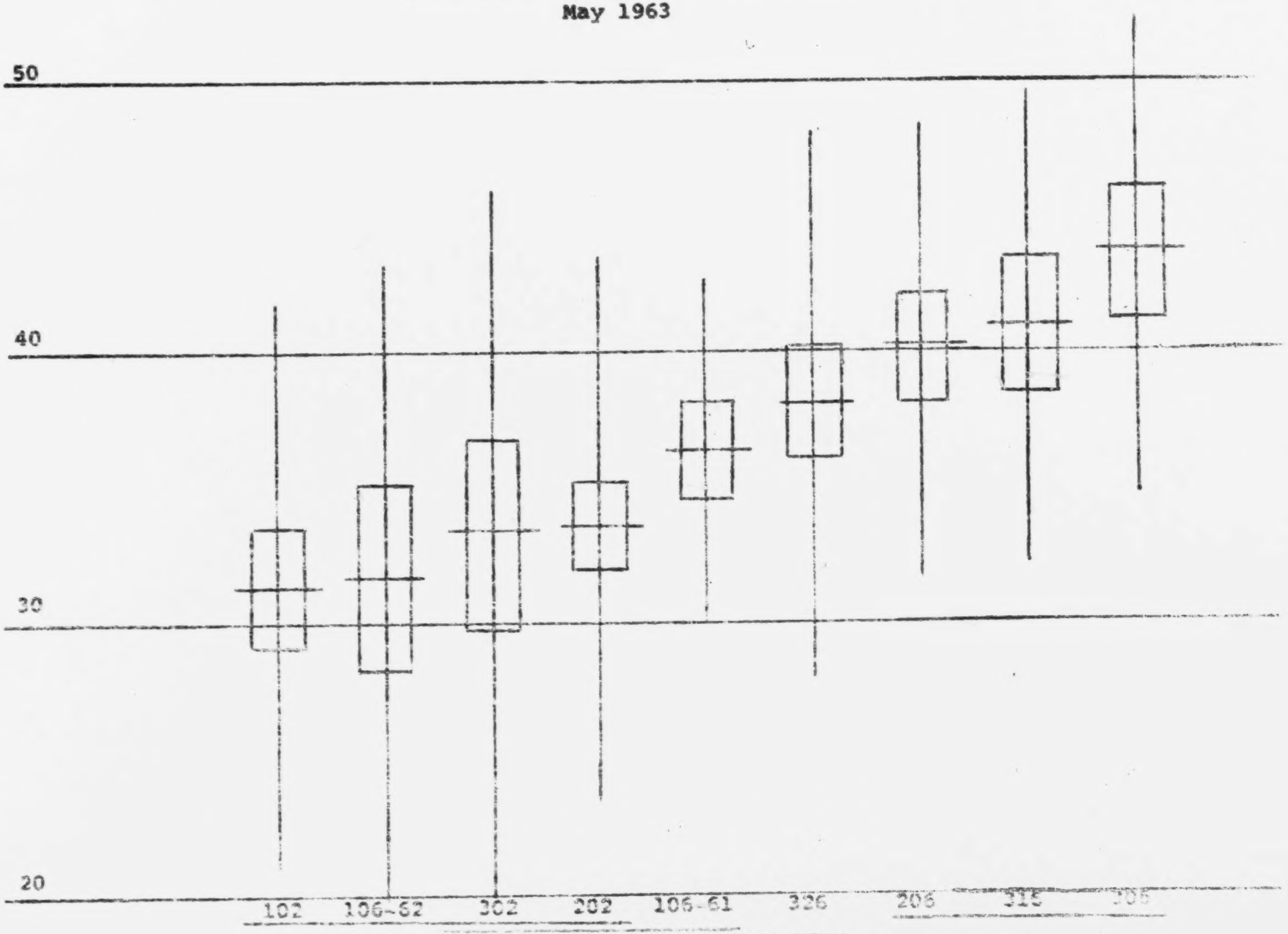


Figure 1.19
SPANISH READING TEST EPL1
January 1961

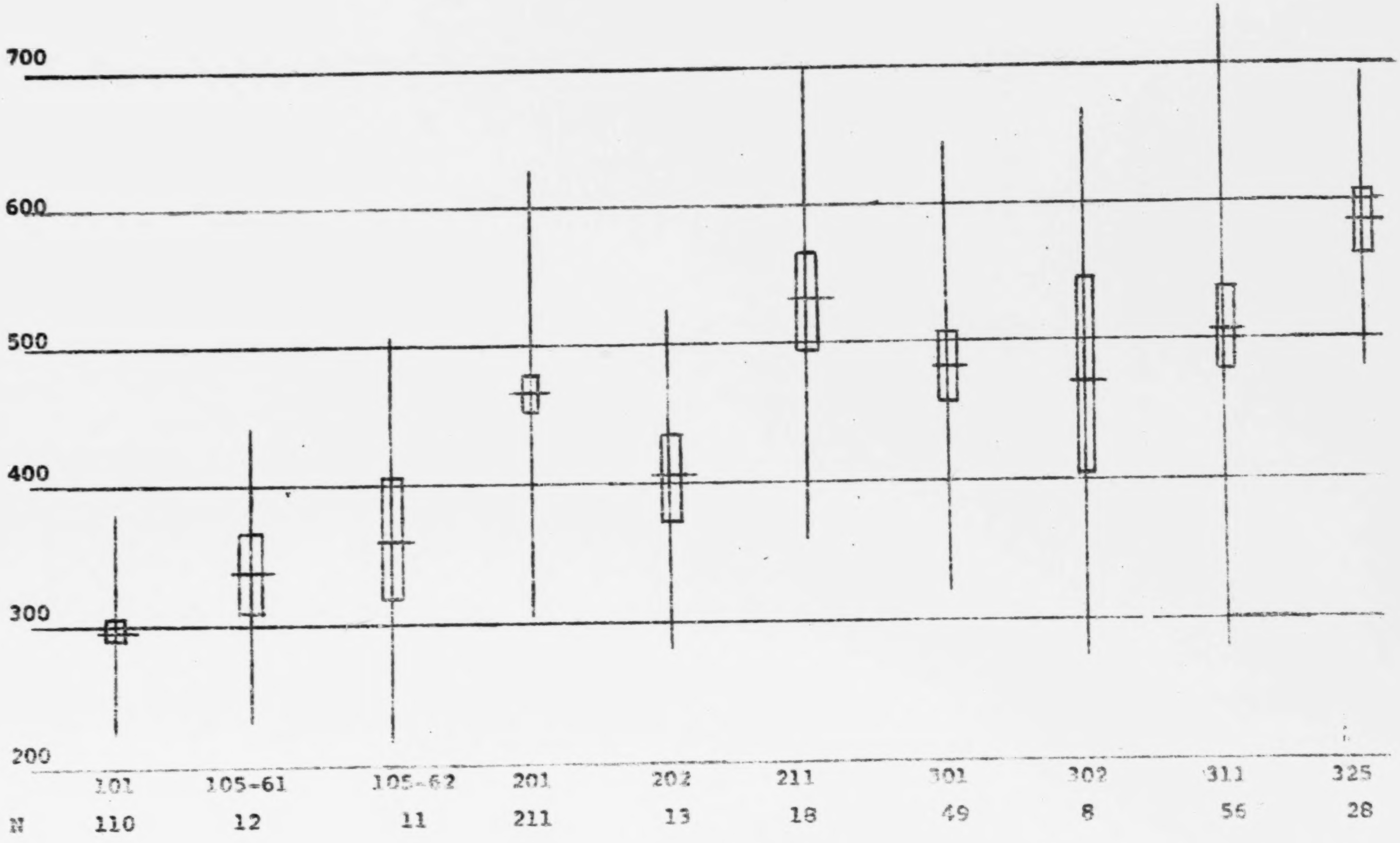


Table 1.19

SPANISH READING TEST EPL1

May 1961

Course	Number Tested	Mean	Standard Deviation
101	22	318.54	53.67
102	93	388.23	77.91
106-61	12	403.08	49.36
106-62	11	438.73	108.05
201	11	452.55	84.54
202	177	523.28	74.51
212	17	570.82	53.57
301	14	496.57	94.97
302	47	521.68	85.92
312	54	556.69	101.18
326	23	616.57	50.42
Total	481	490.21	108.21

Figure 1.20

SPANISH READING TEST EPL1

May 1961

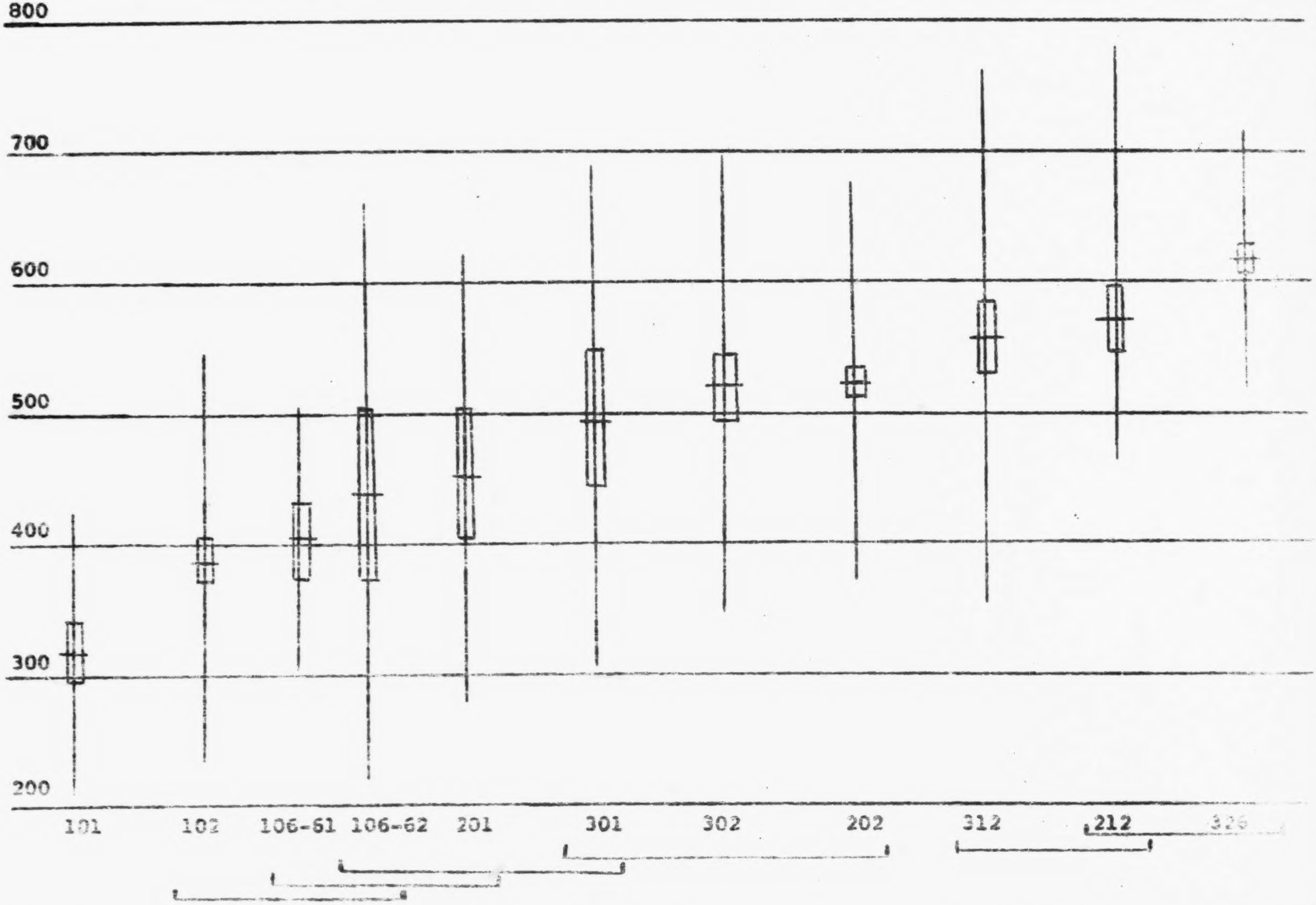


Table 1.21

SPANISH READING TEST BPL2

January 1962

Course	Number Tested	Mean	Standard Deviation
101	81	297.25	36.89
102	11	338.91	53.35
103	23	305.96	40.26
105-61	14	323.50	57.83
105-62	16	298.81	28.95
201	189	463.61	85.19
202	13	442.46	62.23
205	15	429.80	83.46
301	55	501.82	86.46
311	72	545.01	120.51
325	25	595.20	60.97
Total	514	439.09	122.19

FIGURE 1.21

SPANISH READING TEST BPL2

JANUARY 1962

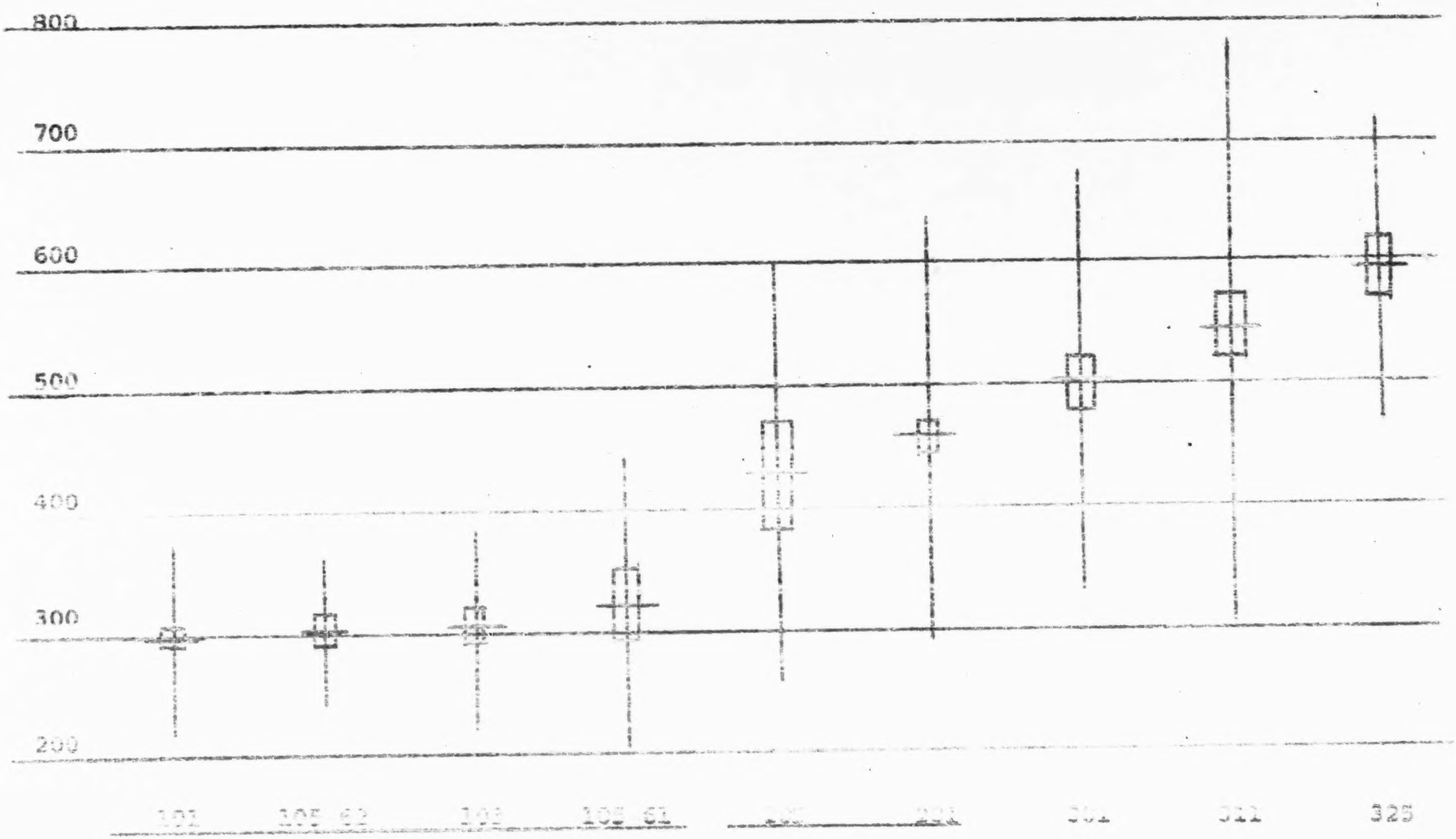


Table 1.22

SPANISH READING TEST BPL2

May 1962

Course	Number Tested	Mean	Standard Deviation
101	15	294.40	52.64
102	60	341.08	42.02
104	20	391.10	67.60
106-61	10	398.70	82.32
106-62	13	250.38	64.79
201	14	438.64	60.77
202	171	543.93	84.29
206	13	501.31	96.54
301	7	500.14	126.41
302	31	574.74	73.31
312	69	588.55	125.62
326	23	664.48	62.76
Total	446	502.52	130.87

Figure 1.22

SPANISH READING TEST BPL2

May 1962

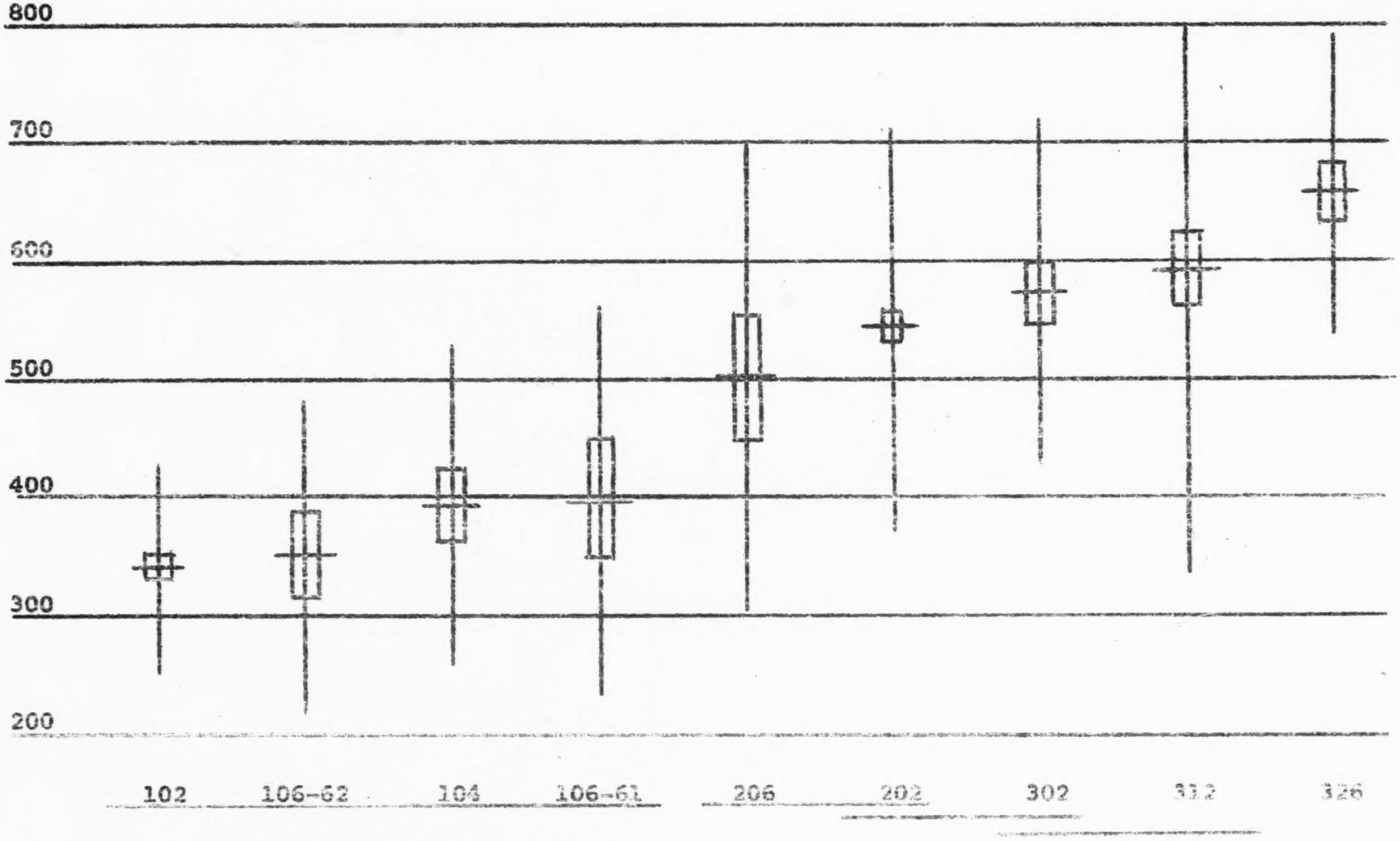


Table 1.23

SPANISH READING TEST KPL2

January 1963

Course	Number Tested	Mean	Standard Deviation
101	67	341.36	51.95
102	9	383.44	60.69
105-61	7	345.00	35.07
105-62	7	337.14	46.40
201	157	466.87	81.45
202	19	473.89	64.20
205	28	448.89	85.85
301	28	573.54	99.28
305	8	605.88	93.74
311	84	553.75	84.79
325	27	651.30	56.93

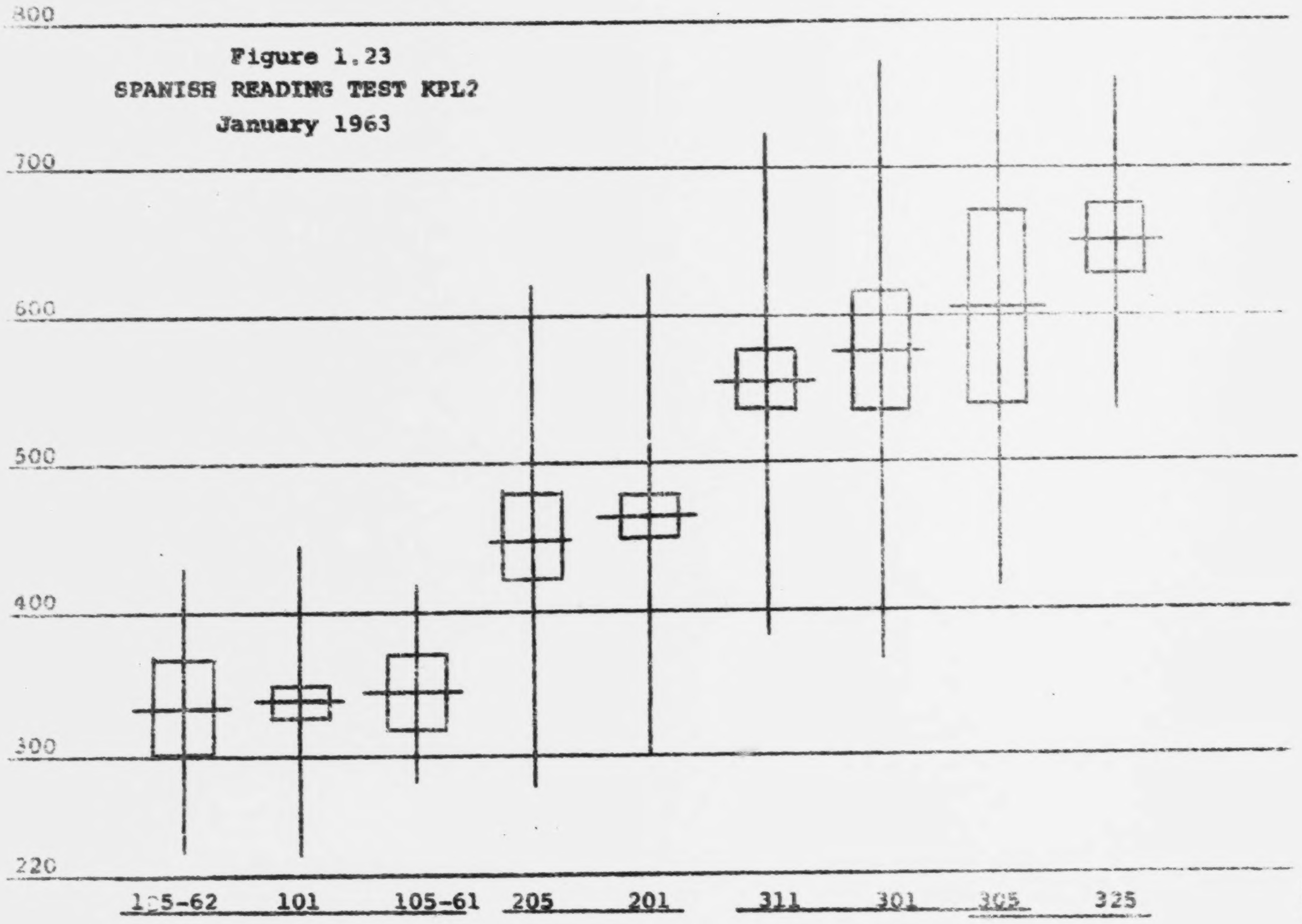


Figure 1.23
SPANISH READING TEST KPL2
January 1963

Table 1.24

SPANISH READING TEST 1712

May 1963

Course	Number Tested	Mean	Standard Deviation
101	16	366.44	114.[illegible]
102	59	368.93	89.50
106-61	6	388.67	56.89
106-62	7	344.57	68.90
201	16	397.94	72.18
202	111	504.74	93.29
206	25	479.16	87.86
301	5	538.20	71.23
302	20	547.40	131.[illegible]
306	8	530.63	130.98
312	103	542.78	106.[illegible]
326	21	626.43	132.91

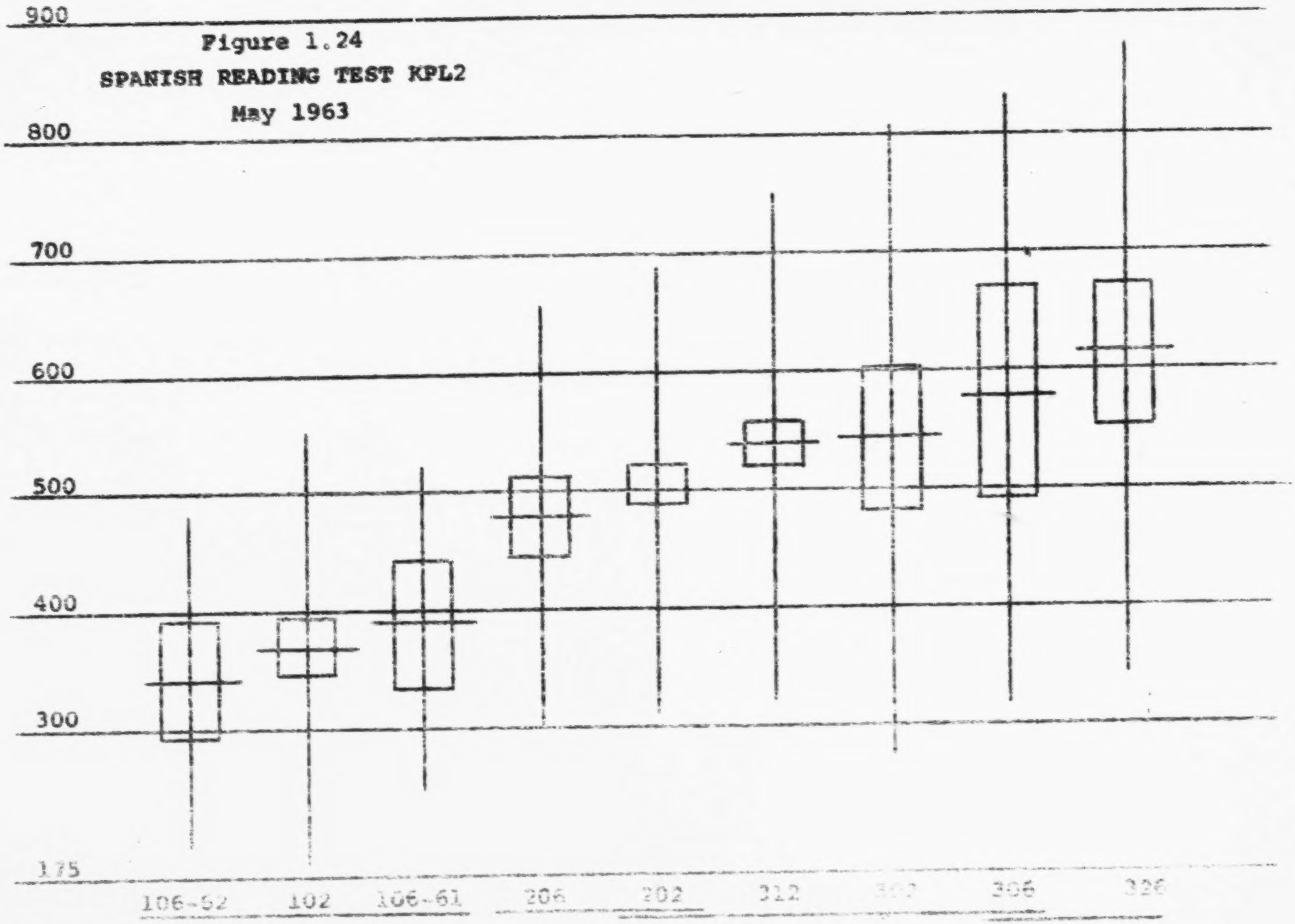


Figure 1.24

SPANISH READING TEST KPL2

May 1963

Figure 1.25
SPANISH LISTENING TEST IBA
January 1961

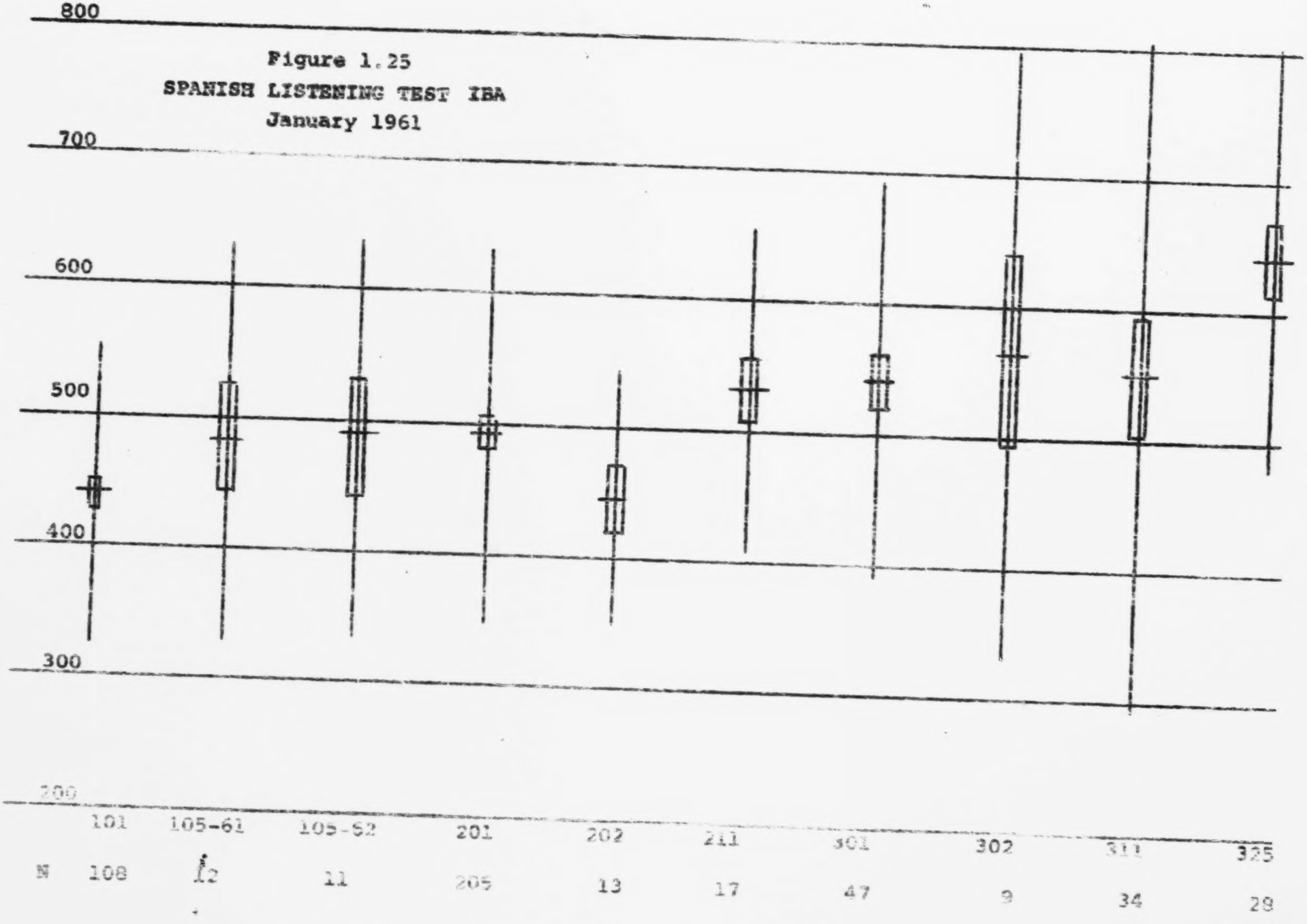


Table 1.26

SPANISH LISTENING COMPREHENSION TEST IBA

May 1961

Course	Number Tested	Mean	Standard Deviation
101	24	463.00	96.97
102	93	478.12	78.53
106-61	12	541.42	63.63
106-62	11	500.00	68.86
201	11	462.91	49.95
202	177	542.92	84.33
212	17	585.41	64.60
301	14	545.36	127.70
302	45	556.04	87.31
312	55	615.64	139.09
326	22	674.41	82.64
Total	481	540.68	105.05

Figure 1.26

SPANISH LISTENING COMPREHENSION TEST IBA

May 1961

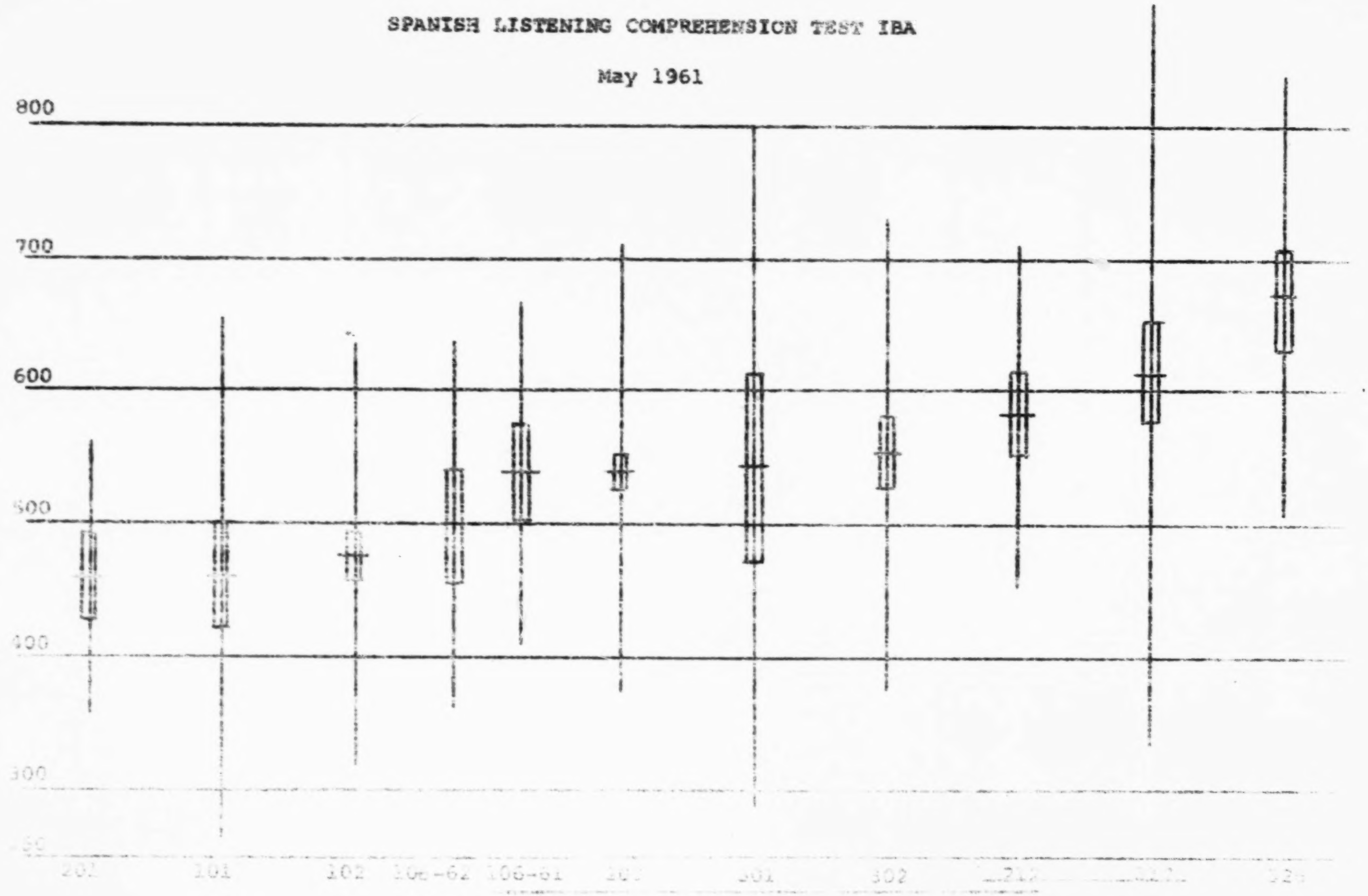


Table 1.27

SPANISH LISTENING COMPREHENSION TEST JBA

January 1962

Course	Number Tested	Mean	Standard Deviation
101	81	404.62	62.22
102	13	420.38	54.48
103	22	412.55	57.33
105-61	14	447.14	62.26
105-62	16	384.63	38.10
201	193	466.60	80.49
202	12	464.67	64.86
205	15	523.20	95.20
301	54	546.87	100.81
311	73	595.78	136.56
325	24	593.58	100.62
Total	517	484.47	111.11

Figure 1.27

SPANISH LISTENING COMPREHENSION TEST

January 1962

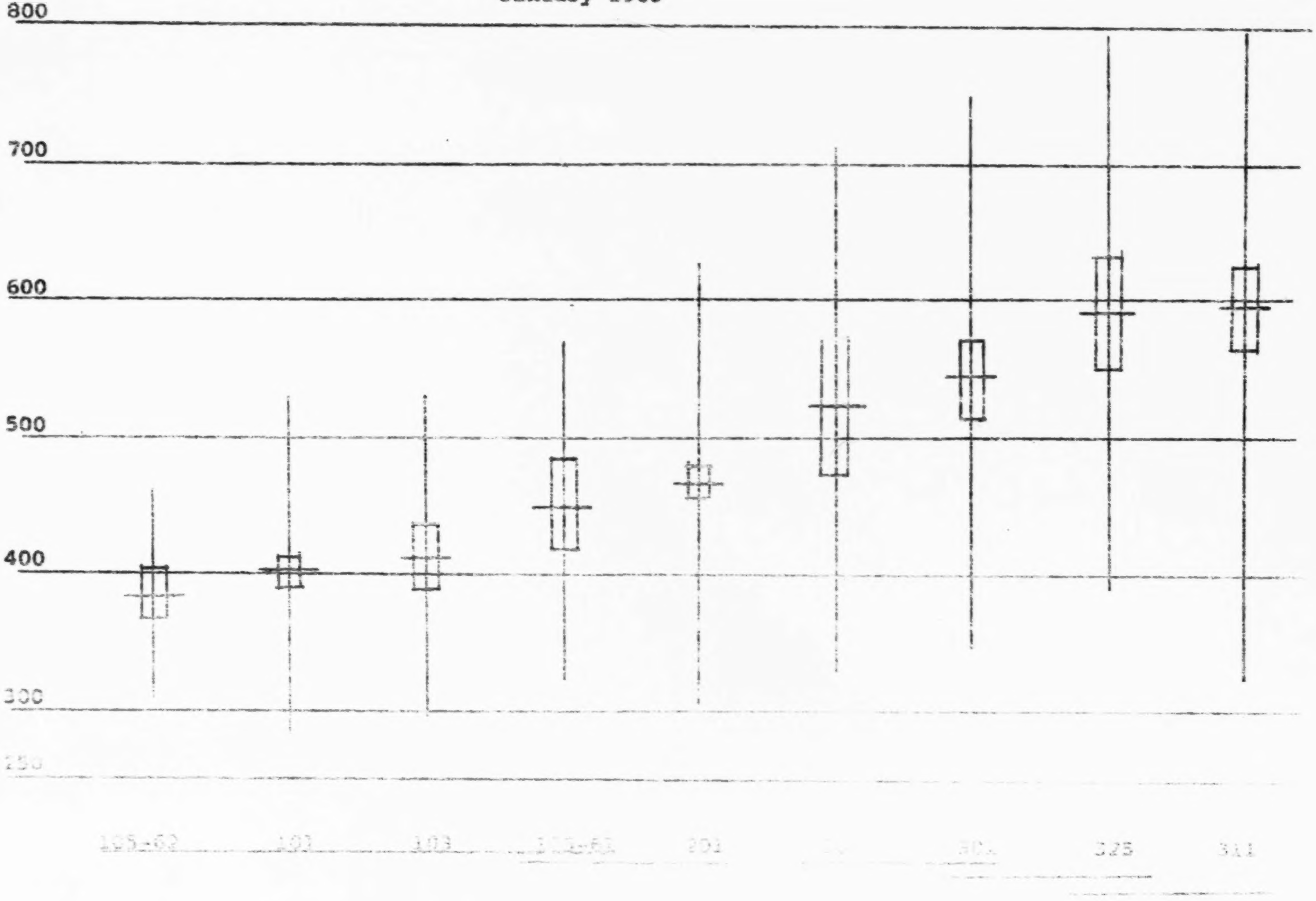


Table 1.28

SPANISH LISTENING COMPREHENSION TEST [illegible]BA

May 1962

Course	Number Tested	Mean	Standard Deviation
101	13	444.35	111.37
102	56	454.98	80.45
104	19	476.53	88.29
106-61	12	505.08	89.94
106-62	14	452.07	58.02
201	14	458.36	73.44
202	166	544.02	102.02
206	13	570.00	71.62
301	7	514.14	64.50
302	41	588.41	95.40
312	66	646.92	127.47
326	21	686.00	84.68
Total	442	546.76	119.79

Figure 1.28

SPANISH LISTENING COMPREHENSION TEST JBA

May 1962

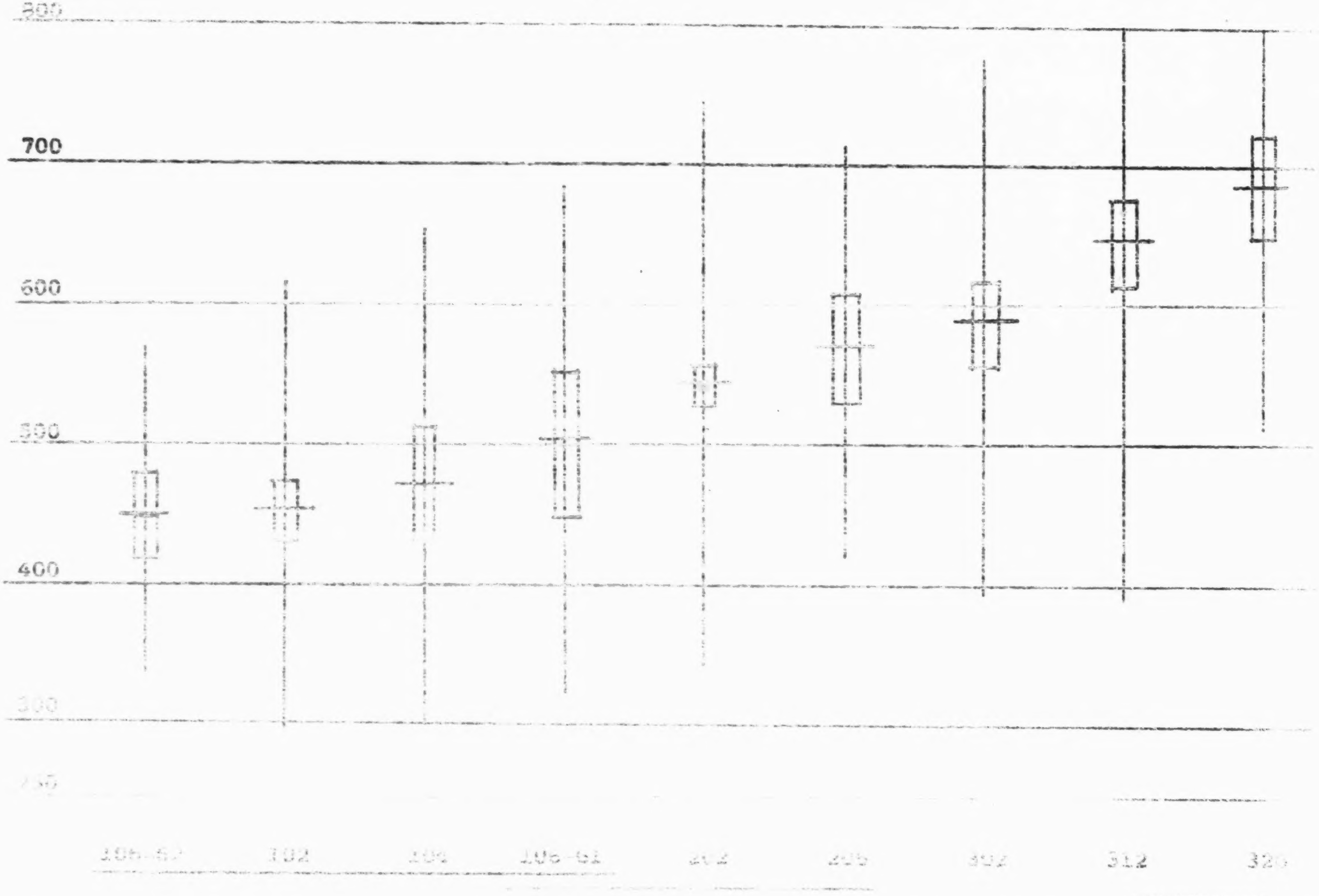


Table I-79

SPANISH LISTENING COMPREHENSION TEST SPL1

January 1963

Course	Number Tested	Mean	Standard Deviation
101	67	397.96	65.60
102	9	449.67	61.54
105-61	7	414.43	55.83
105-62	7	395.29	71.12
201	157	477.22	75.70
202	19	507.68	50.70
205	28	516.93	94.80
301	28	651.46	92.59
305	8	692.88	85.24
311	84	586.23	105.42
325	27	713.70	66.31

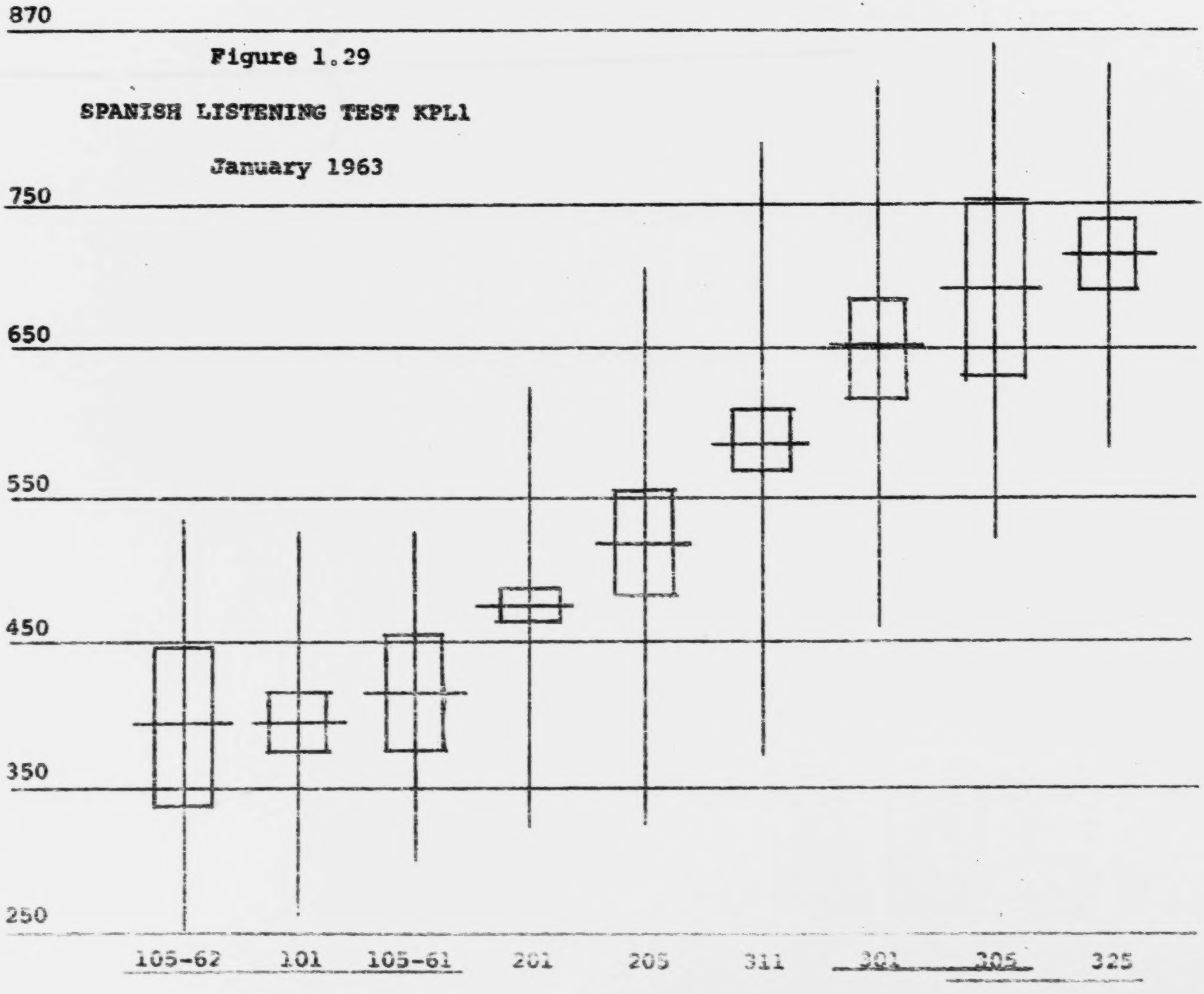


Figure 1.29

SPANISH LISTENING TEST KPL1

January 1963

Table 1.30

SPANISH LISTENING COMPREHENSION TEST JPL

May 1963

Course	Number Tested	Mean	Standard Deviation
101	16	436.88	86.82
102	59	453.53	76.00
106-61	6	455.83	39.73
106-62	7	451.00	79.27
201	16	455.19	58.24
202	111	516.32	82.22
206	25	533.72	81.23
301	5	605.20	129.71
302	20	615.25	98.32
306	8	682.50	101.35
312	103	577.18	102.47
326	21	727.24	50.98

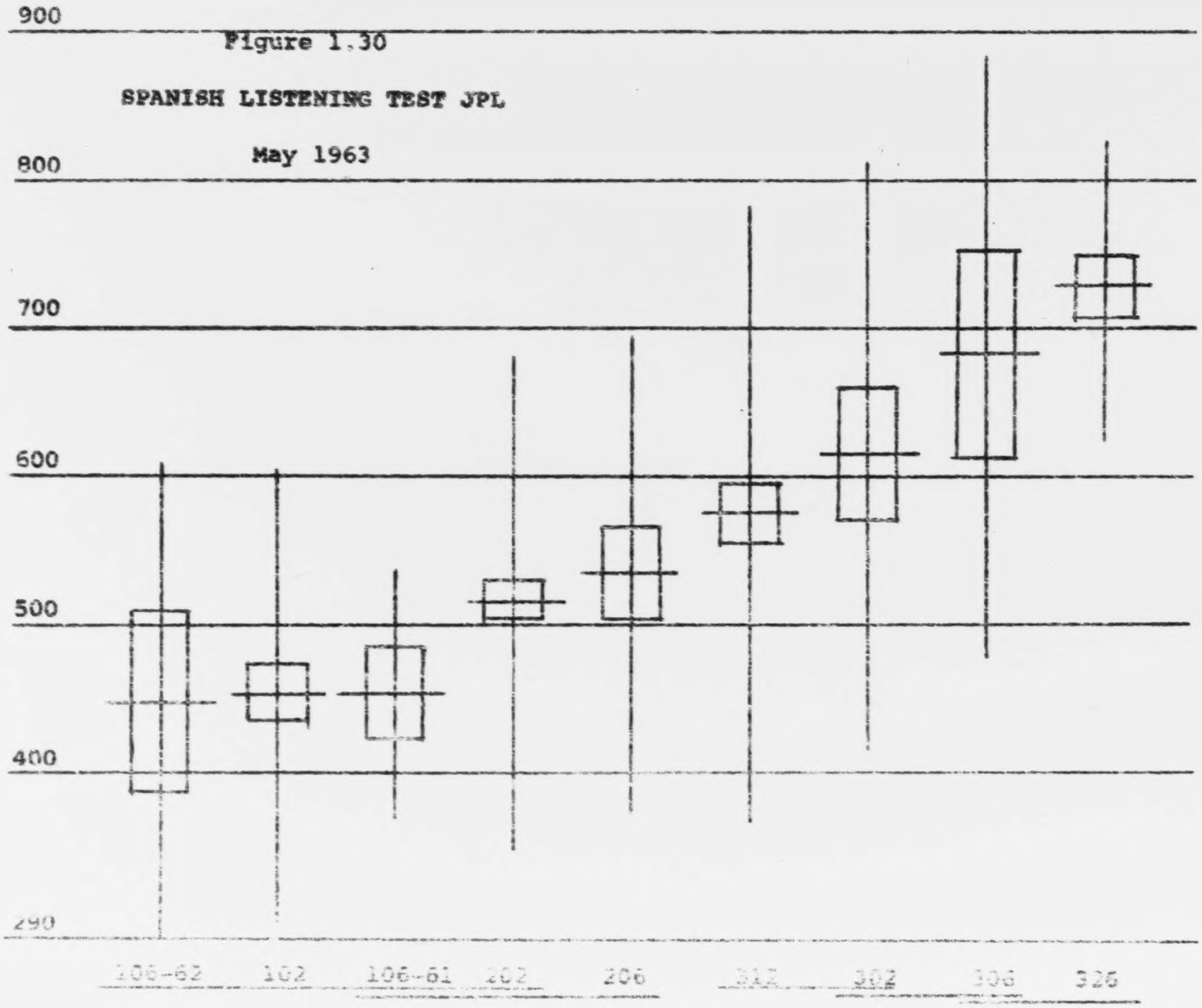


Figure 1.30

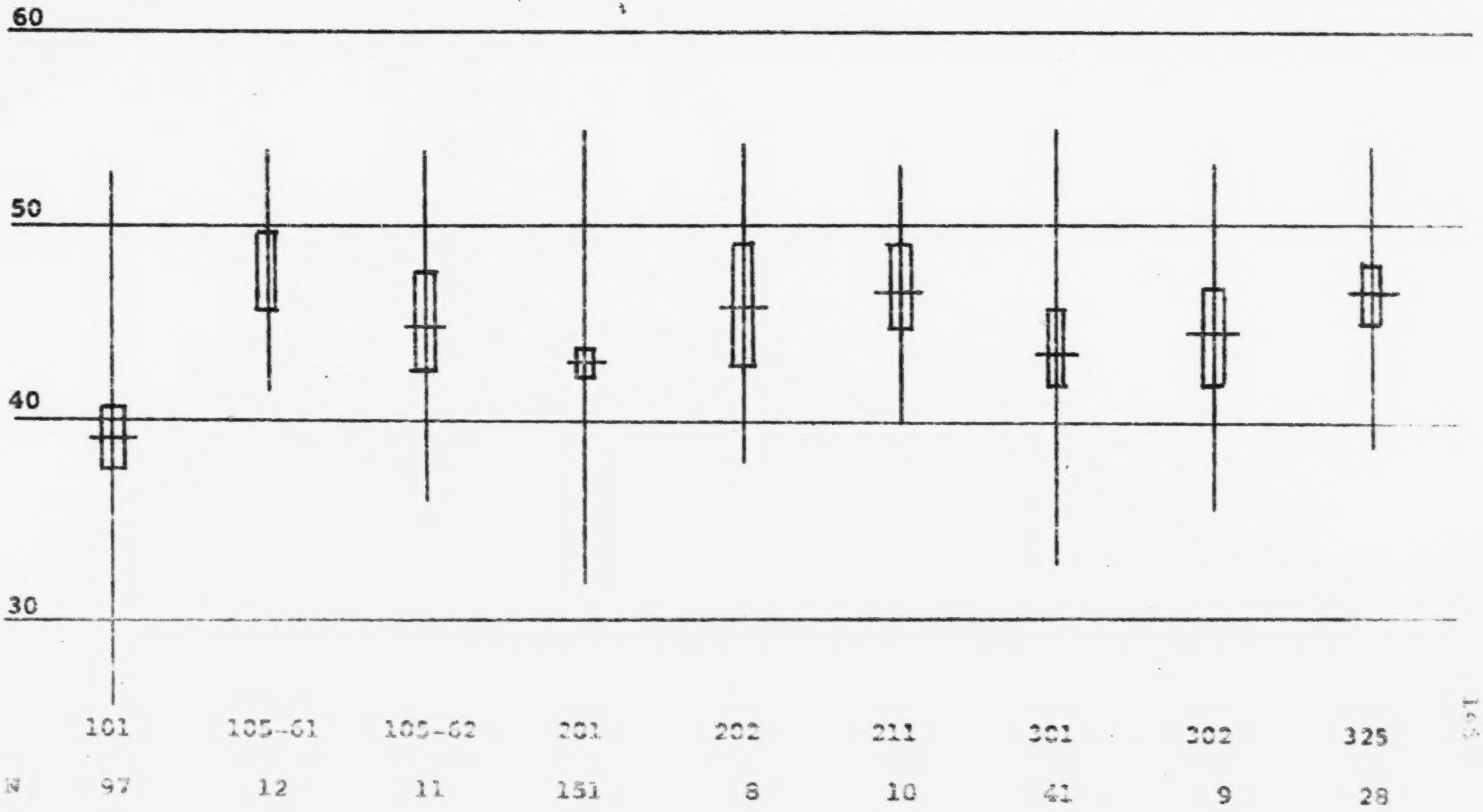
SPANISH LISTENING TEST JPL

May 1963

Figure 1.31

SPANISH ORAL TEST SOP-I

January 1961



%of possible, among 60 total.

Table 1.32

SPANISH ORAL PRODUCTION TEST WOP-II

May 1961

Course	Number Tested	Mean	Standard Deviation
101	22	58.04	5.08
102	89	61.08	8.52
106-61	12	66.17	4.71
106-62	11	61.91	3.05
201	8	57.88	7.32
202	155	64.42	7.10
212	16	62.75	4.77
312	16	62.13	7.16
326	21	69.67	5.78
Total	350	63.13	7.53

Figure 1.32

SPANISH ORAL PRODUCTION TEST WOP-II

May 1961

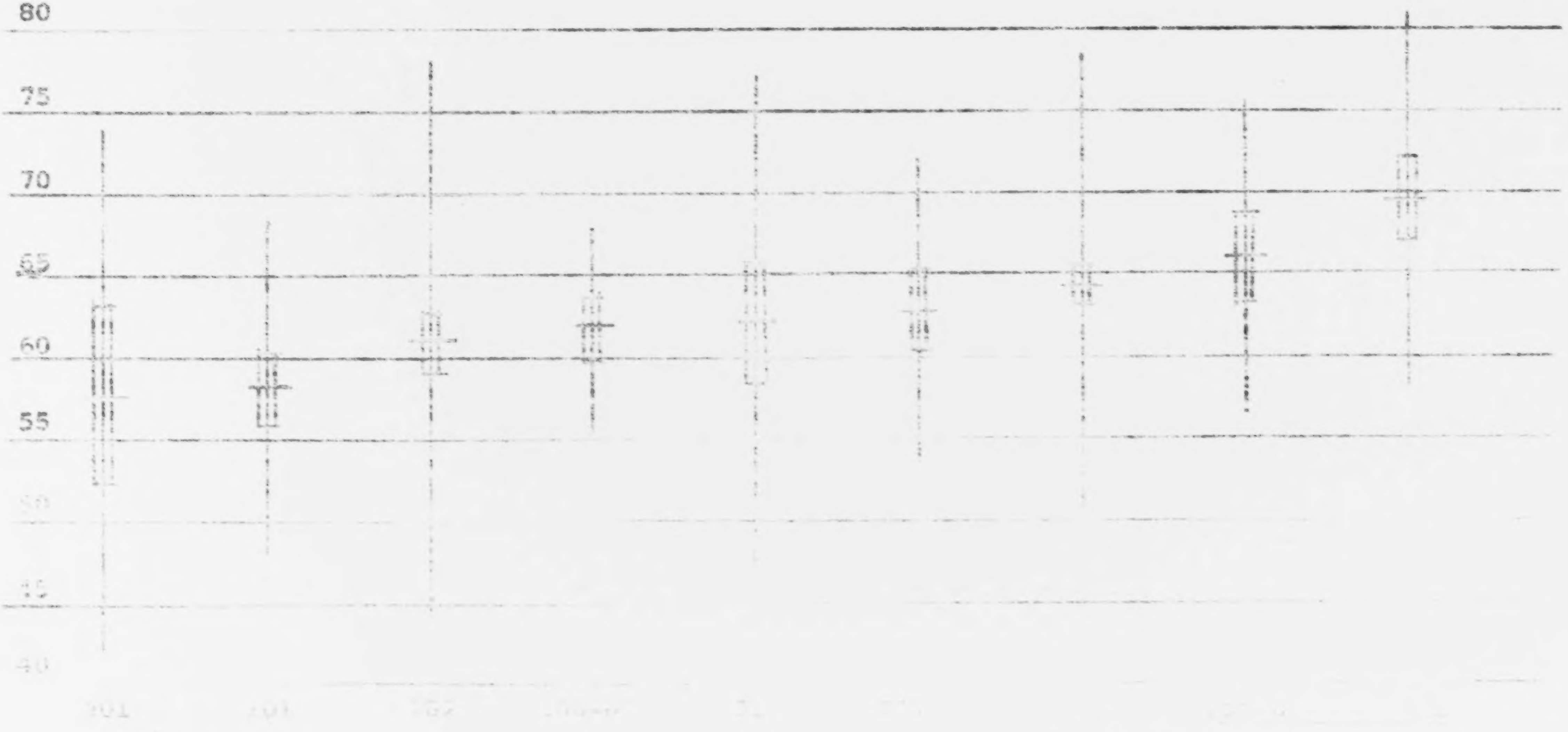


Table 1.33

SPANISH ORAL PRODUCTION TEST SOP-II

January 1962

Course	Number Tested	Mean	Standard Deviation
101	73	37.81	5.44
102	10	45.80	7.08
103	20	47.60	3.68
105-61	13	49.38	5.01
105-62	16	46.69	4.94
201	156	44.17	5.76
202	4	47.25	5.74
205	15	56.07	3.13
301	50	46.74	5.78
311	62	46.03	5.86
325	22	52.77	5.01
Total	441	44.97	7.04

Figure 1.33

SPANISH ORAL PRODUCTION TEST UOP-II

January 1962

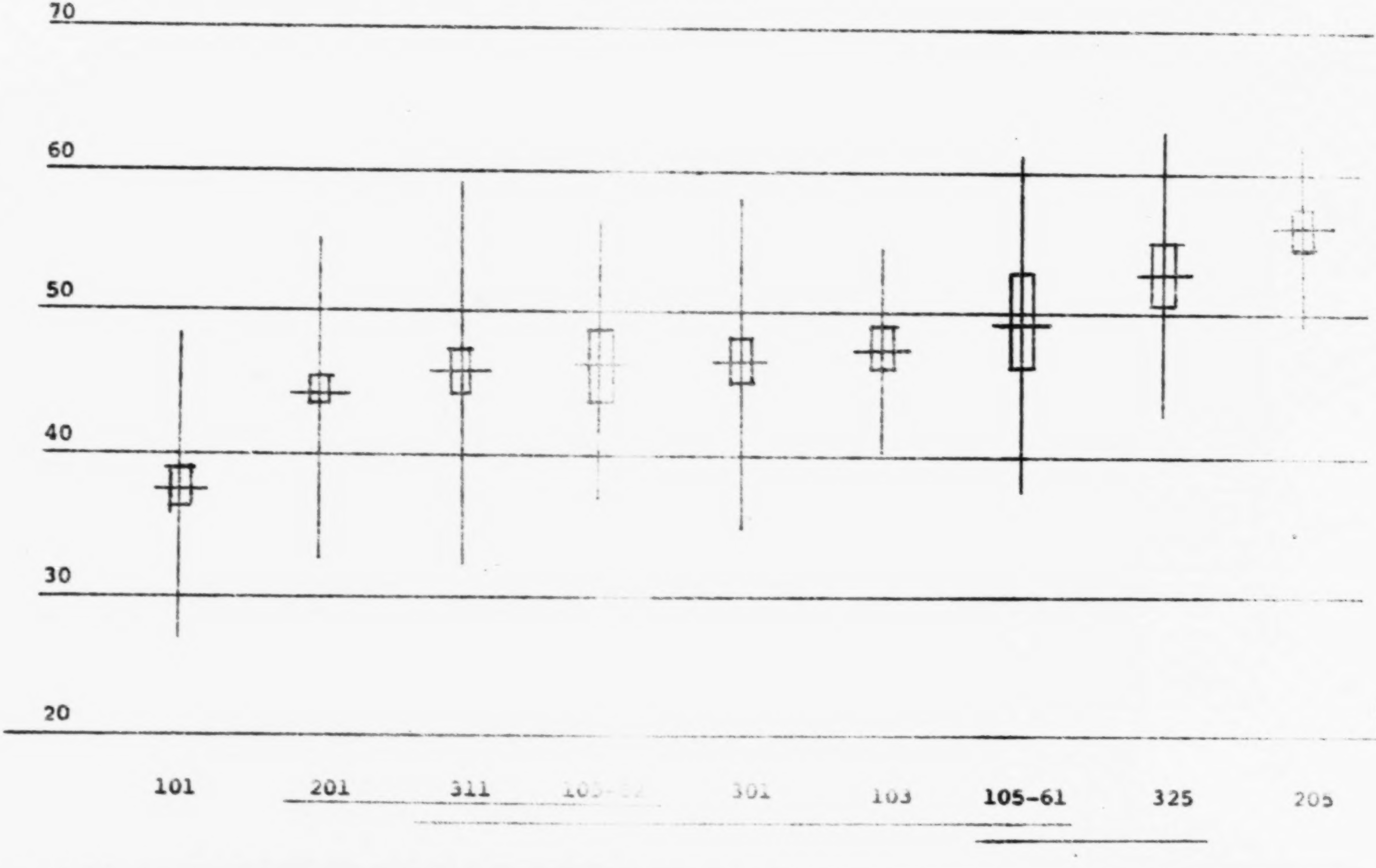


Table 1.34

SPANISH ORAL PRODUCTION TEST UOP-III

May 1962

Course	Number Tested	Mean	Standard Deviation
101	11	49.18	13.41
102	61	54.03	14.63
104	20	68.50	13.39
106-61	12	84.17	16.19
106-62	13	69.54	18.46
201	5	70.40	23.99
202	30	59.90	17.79
206	13	91.38	11.01
301	5	54.20	12.15
302	8	63.12	16.37
312	30	81.60	22.51
326	25	88.08	14.02

Figure 1.34

SPANISH ORAL PRODUCTION TEST UOP-III

May 1962

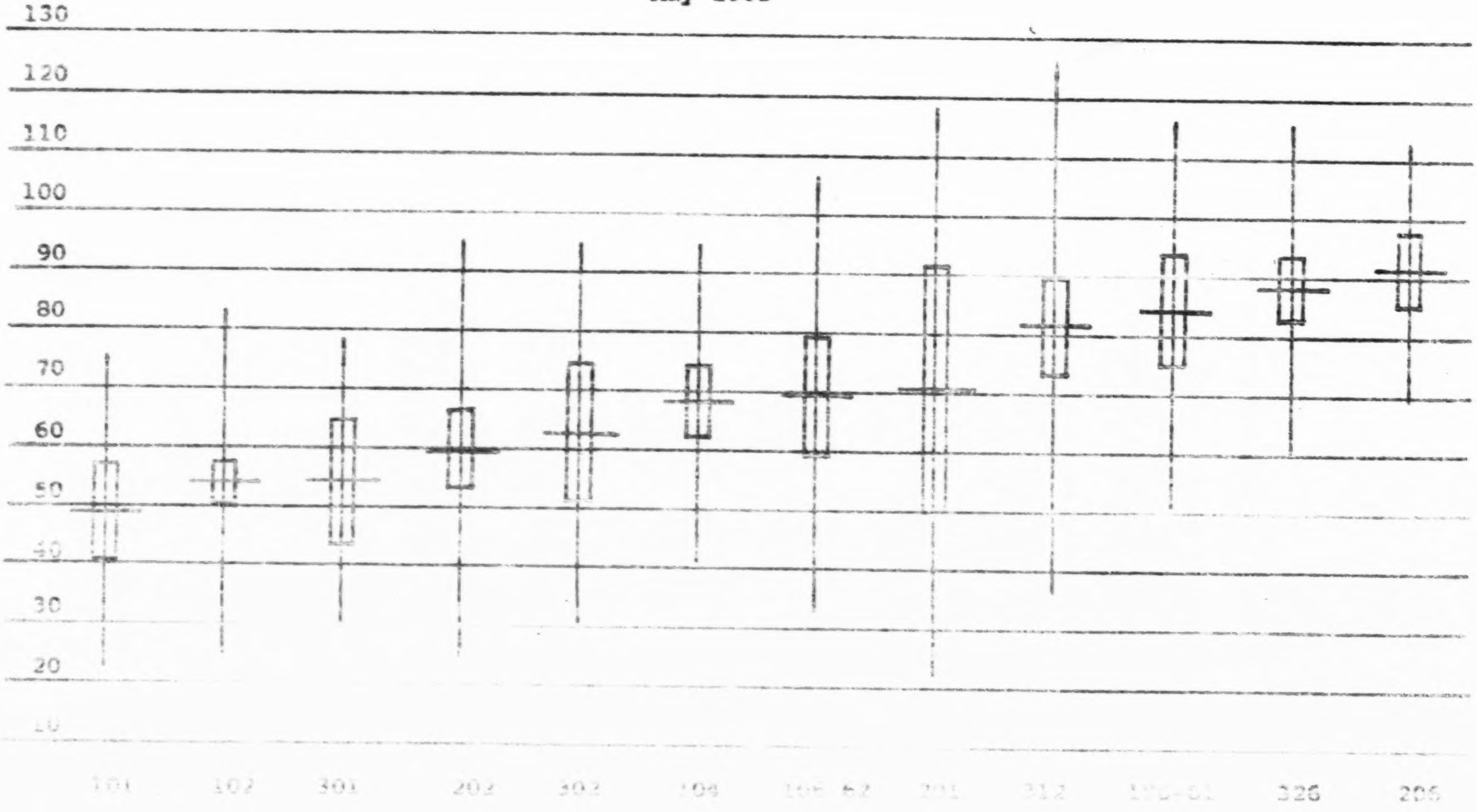


Table 1.35

SPANISH ORAL PRODUCTION TEST LOP-IV

January 1963

Course	Number Tested	Mean	Standard Deviation
101	10	35.70	6.31
102	10	29.40	6.52
105-61	7	32.86	6.39
105-62	7	31.00	[illegible] 21
201	11	30.55	6.33
202	16	30.38	5.12
205	29	41.66	6.60
301	8	40.50	4.28
305	7	43.00	2.83
311	41	32.12	7.84
325	22	45.05	3.93

Figure 1.35

SPANISH ORAL PRODUCTION TEST SOP-IV

January 1963

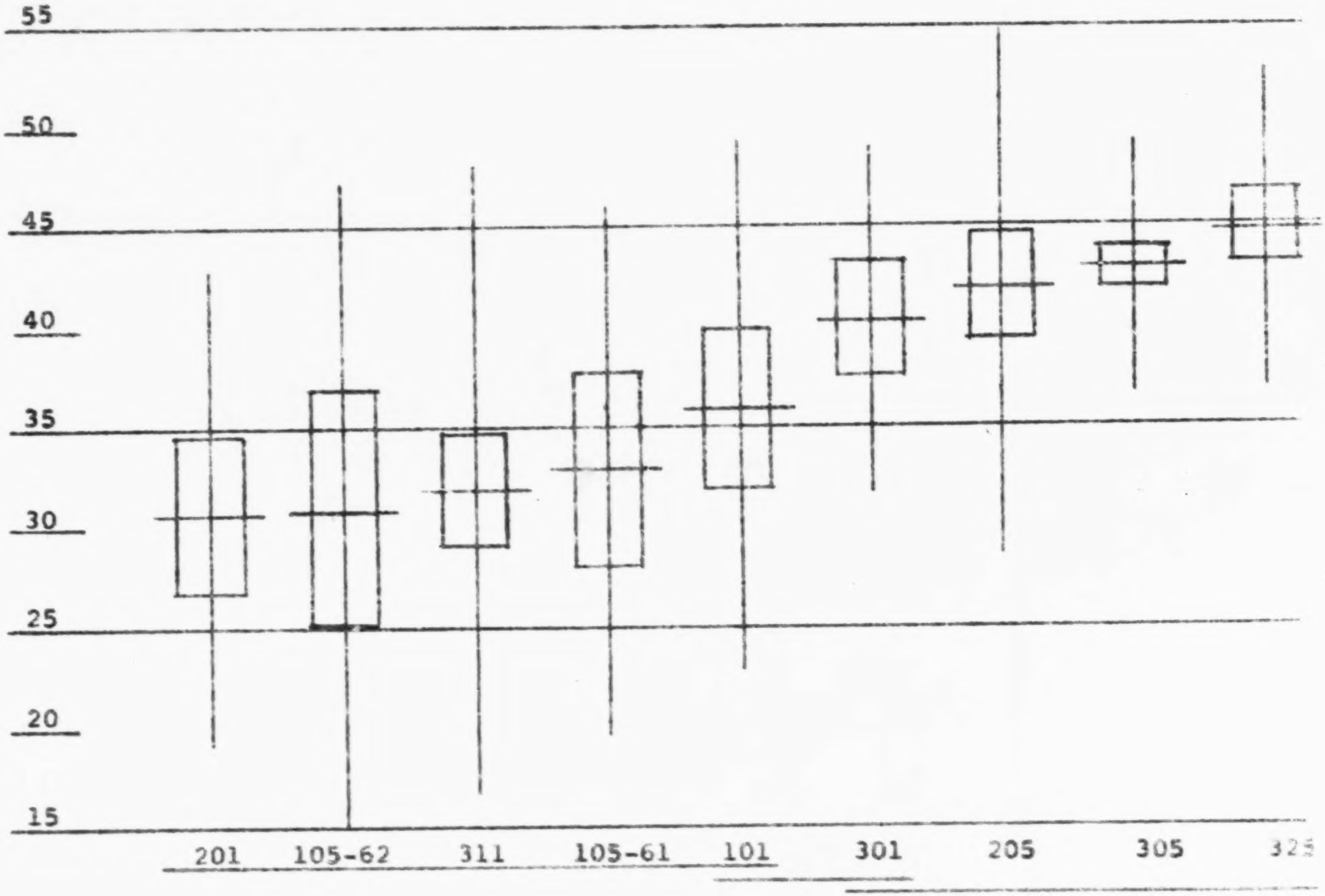


Table 1.36

SPANISH ORAL PRODUCTION TEST UOP-IV

May 1963

Course	Number Tested	Mean	Standard Deviation
101	8	29.63	9.24
102	10	30.80	6.83
106-61	--	-----	----
106-62	--	-----	----
201	15	31.87	14.53
202	17	33.12	5.04
206	25	40.24	7.02
302	9	41.77	3.93
306	7	48.29	3.99
312	42	32.36	8.67
326	21	45.14	4.51

Figure 1.36

SPANISH ORAL PRODUCTION TEST UOP-IV

May 1963

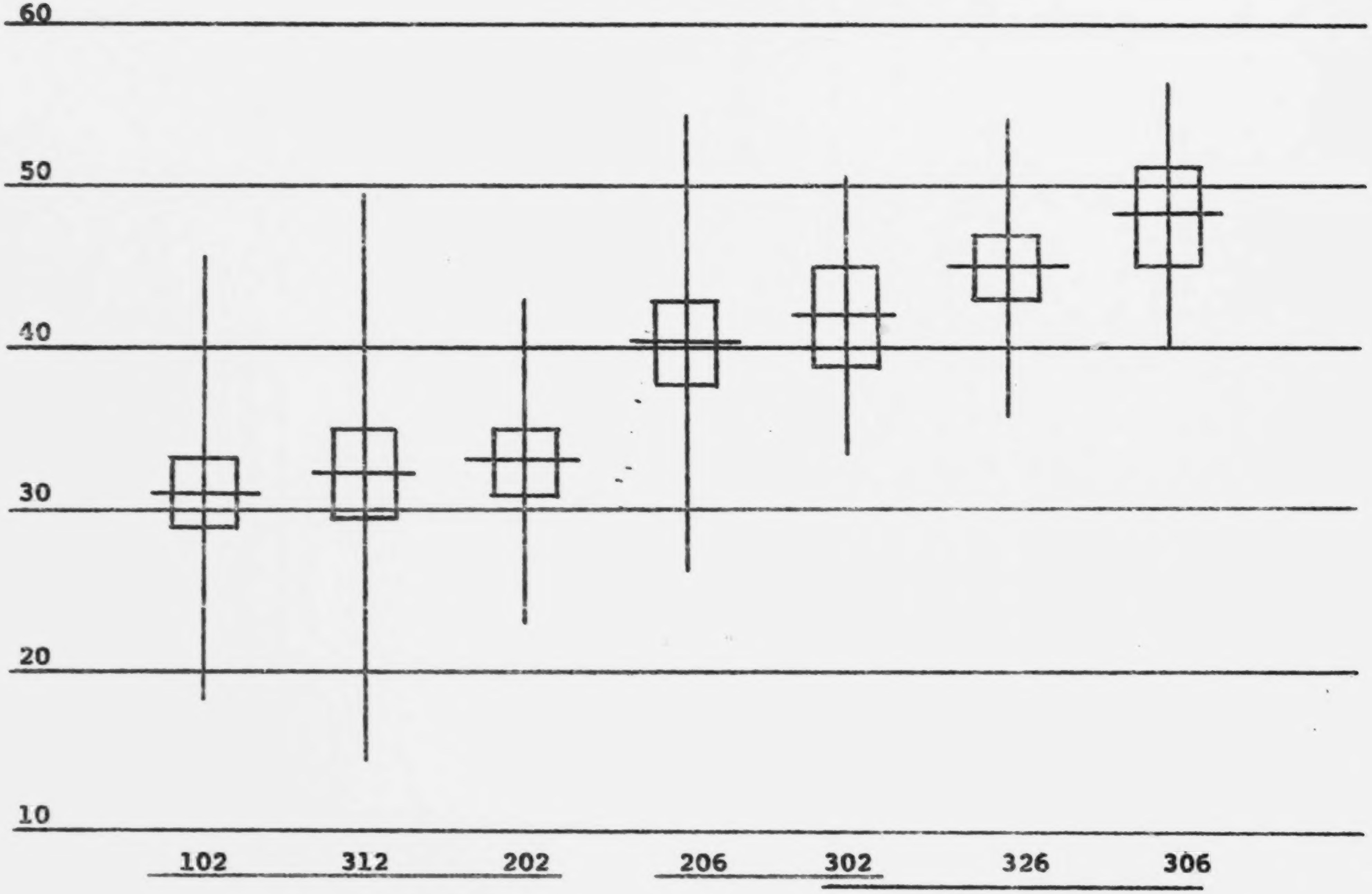


Table 1.37

COMPARISONS OF COMBINED ELEMENTARY LEVEL EXPERIMENTAL GROUP MEAN WITH CONTROL GROUP MEAN

1960-1961

Test	Test Mean		t	p*
	102	106		
French Reading Test	395.68	397.03	.108	--
French Listening Comprehension Test	454.48	504.76	3.215	$\leq .005$
French Oral Production Test	59.22	62.00	2.206	$\leq .025$
Spanish Reading Test	388.23	420.13	1.737	$\leq .05$
Spanish Listening Comprehension Test	478.12	521.63	2.436	$\leq .025$
Spanish Oral Production Test	61.08	64.13	1.663	$\leq .05$

*probility associated with a t-statistic obtained for the null hypothesis that the mean of the experimental group is less than or equal to the mean of the control group.

Table 1.38

COMPARISONS OF COMBINED ELEMENTARY LEVEL EXPERIMENTAL GROUP MEAN WITH CONTROL GROUP MEAN

1961-1962

Test	Test Mean 101-102	 105-106	t	p*
French Tests				
Reading Test, 1/62	375.37	380.24	640	n.s.
Reading Test, 5/62	386.43	383.45	-.221	n.s.
List. Test, 1/62	458.48	463.69	.498	n.s
List. Test, 5/62	478.65	511.07	2.555	<.025
Oral Prod. Test, 1/62	51.57	54.17	8.344	<.005
Oral Prod. Test (Total)	52.73	66.07	4.211	<.005
Oral Prod. Test (I), 5/62	23.51	24.52	2.782	<.005
Oral Prod. Test (II), 5/62	17.96	24.56	13.580	<.005
Oral Prod. Test (III), 5/62	11.27	17.00	12.848	<.005
Spanish Tests				
Reading Test, 1/62	297.25	310.33	1.230	<.150
Reading Test, 5/62	341.08	371.39	2.326	<.025
List. Test, 1/62	404.62	413.80	.700	n.s
List. Test, 5/62	454.98	476.54	1.141	<.150
Oral Prod. Test, 1/62	37.81	47.90	8.408	<.005
Oral Prod. Test (Total)	54.03	76.56	5.978	<.005
Oral Prod. Test (I,II), 5/62	19.74	25.62	15.680	<.005
Oral Prod. Test (III), 5/62	13.89	21.65	18.476	<.005
Oral Prod. Test (IV), 5/62	9.79	14.08	9.728	<.005

*probability associated with a t-statistic obtained for the null hypothesis that the mean of the experimental group is less than or equal to the mean of the control group.

Table 1.39

COMPARISONS OF COMBINED ELEMENTARY LEVEL EXPERIMENTAL GROUP MEANS WITH CONTROL GROUP MEANS

1962-1963

Test	Test Mean		t	p*
	101-102	105-106		
French Tests				
Reading Test, 1/63	339.31	334.26	.467	n.s.
Reading Test, 5/63	402.48	357.70	2.257	<.025
Listening Test, 1/63	423.85	439.45	1.145	n.s.
Listening Test, 5/63	481.37	458.22	1.536	n.s.
Oral Prod. Test, 1/63	27.91	29.37	1.152	n.s.
Oral Prod. Test, 5/63	31.41	34.04	1.783	n.s.
Spanish Tests				
Reading Test, 1/63	341.36	341.07	.019	n.s.
Reading Test, 5/63	368.93	364.92	.148	n.s.
Listening Test, 1/63	397.96	404.86	.358	n.s.
Listening Test, 5/63	453.53	453.23	.003	n.s.
Oral Prod. Test, 1/63	35.70	31.93	1.312	n.s.

*Probability associated with a t-statistic obtained under the hypothesis of random sampling from a common population.

Table 1.40

COMPARISONS OF SECOND-YEAR EXPERIMENTAL GROUP MEAN WITH CONTROL GROUP MEAN

1961-1962

Test	Test Mean 201-202	 205-206	t	p*
French Tests				
Reading Test, 1/62	481.63	513.54	2.575	<.025
Reading Test, 5/62	479.90	472.91	-.481	
List. Test, 1/62	499.86	462.96	-3.045	
List. Test, 5/62	512.22	534.48	1.517	
Oral Prod. Test, 1/62	46.05	54.74	6.534	<.005
Oral Prod. Test, (Total)	59.72	75.16	4.717	<.005
Oral Prod. Test (I), 5/62	26.50	28.89	2.060	<.025
Oral Prod. Test (II), 5/62	18.90	25.11	3.489	<.005
Oral Prod. Test (III), 5/62	14.33	21.16	3.971	<.005
Spanish Tests				
Reading Test, 1/62	463.61	429.61	-1.482	
Reading Test, 5/62	543.92	501.31	-1.740	
List. Test, 1/62	466.57	523.20	2.589	<.025
List. Test, 5/62	544.02	570.00	.900	
Oral Prod. Test, 1/62	44.17	56.07	7.881	<.005
Oral Prod. Test, (Total)	59.90	91.38	5.885	<.005
Oral Prod. Test (I, II), 5/62	20.57	29.15	5.797	<.005
Oral Prod. Test (III), 5/62	19.80	27.31	3.169	<.005
Oral Prod. Test (IV), 5/62	9.63	19.15	4.713	<.005

*Probability associated with a t-statistic obtained for the null hypothesis that the mean of the experimental group is less than or equal to the mean of the control group.

Table 1.41

COMPARISONS OF SECOND LEVEL EXPERIMENTAL GROUP MEANS WITH CORRESPONDING CONTROL GROUP MEANS

1962-1963

Test	Test Mean 201-202	Test Mean 205-206	t	P*
French Tests				
Reading Test, 1/63	454.19	450.29	.183	n.s.
Reading Test, 5/63	518.74	455.72	2.517	<.02
Listening Test, 1/63	482.17	515.35	1.868	n.s.
Listening Test, 5/63	491.05	535.44	2.776	<.01
Oral Prod. Test, 1/63	31.52	39.71	5.056	<.01
Oral Prod. Test, 5/63	33.59	40.72	5.614	<.01
Spanish Tests				
Reading Test, 1/63	466.87	448.89	1.029	n.s.
Reading Test, 5/63	504.74	479.16	1.300	n.s.
Listening Test, 1/63	477.22	516.93	2.095	<.05
Listening Test, 5/63	516.32	533.72	.966	n.s.
Oral Prod. Test, 1/63	30.55	41.66	4.899	<.01
Oral Prod. Test, 5/63	33.12	40.24	3.826	<.01

*probability associated with a t-statistic obtained under the hypothesis of random sampling from a common population.

Table 1.47

COMPARISONS OF THIRD LEVEL EXPERIMENTAL GROUP MEANS WITH CORRESPONDING CONTROL GROUP MEANS

1962-1963

Test	Test Mean 301-302 311-312	 305-306	t	p*
French Tests				
Reading Test, 1/63	537.88	571.75	1.319	n.s.
Reading Test, 5/63	568.54	588.85	.733	n.s.
Listening Test, 1/63	564.16	527.56	2.436	≤.02
Listening Test, 5/63	556.86	636.08	3.048	≤.01
Oral Prod. Test, 1/63	30.15	41.07	7.184	≤.01
Oral Prod. Test, 5/63	33.55	43.62	5.821	≤.01
Spanish Tests				
Reading Test, 1/63	533.75	605.88	1.515	n.s.
Reading Test, 5/63	542.78	580.63	.797	n.s.
Listening Test, 1/63	596.23	692.88	3.306	≤.01
Listening Test, 5/63	577.18	682.50	2.829	≤.01
Oral Prod. Test, 1/63	32.12	43.00	6.691	≤.01
Oral Prod. Test, 5/63	32.36	48.29	7.906	≤.01

---

*probability associated with a t-statistic obtained under the hypothesis of random sampling from a common population.

Table 1.43

COMPARISONS OF 106-61 (MONITORED) WITH 106-62 (UNMONITORED)

1960-1961

Test	Test Mean		t	p*
	106-61	106-62		
French Reading Test	427.73	371.44	3.217	$\leq .005$
French Listening Comprehension Test	526.40	486.72	2.051	$\leq .049$
French Oral Production Test	62.27	61.78	.239	$\leq .820$
Spanish Reading Test	403.08	438.73	1.033	$\leq .320$
Spanish Listening Comprehension Test	541.42	500.00	1.500	$\leq .160$
Spanish Oral Production Test	66.17	61.91	2.551	$\leq .019$

*probability associated with a t-statistic obtained for the null hypothesis that the means for the two experimental sections are equal.

Table 1.44

COMPARISONS OF EXPERIMENTAL SECTION 61 (MONITORED)

WITH SECTION 62 (UNMONITORED)

1961-1962

Test	Test Mean Sec. 61	 Sec. 62	t	p*
French Tests				
Reading Test, 1/62	383.53	376.75	.394	
Reading Test, 5/62	386.67	379.42	.287	
List. Test, 1/62	470.00	456.63	.731	
List. Test, 5/62	522.75	495.60	.851	
Oral Prod. Test, 1/62	53.88	54.47	.527	
Oral Prod. Test (Total)	70.86	60.32	1.845	.10
Oral Prod. Test (I), 5/62	26.29	22.62	2.028	.10
Oral Prod. Test (II), 5/62	25.36	23.69	.586	
Oral Prod. Test (III), 5/62	19.21	14.62	2.059	.05
Spanish Tests				
Reading Test, 1/62	323.50	298.31	1.508	.20
Reading Test, 5/62	398.70	350.38	1.578	.20
List. Test, 1/62	447.14	384.63	3.364	.01
List. Test, 5/62	505.08	452.07	1.812	.10
Oral Prod. Test, 1/62	49.38	46.69	1.325	.20
Oral Prod. Test (Total)	84.17	69.64	2.099	.05
Oral Prod. Test (I,II), 5/62	28.25	23.36	2.747	.02
Oral Prod. Test (III), 5/62	23.08	20.43	1.053	.05
Oral Prod. Test (IV), 5/62	16.92	11.64	1.940	.10

*probability associated with a t-statistic obtained for the null hypothesis that the means for the two experimental sections are equal.

a. Investigators" Observations, Horizontal Comparisons.

1) Characteristics of the Analysis.

The nature of this first analysis and the meaning of conclusions that may be drawn are affected profoundly by the contract provision that the controls would consist of "all other students of French and Spanish." This means that here, in Section IV.B.L., we compare essentially similar groups only on the elementary level. On the second level the controls (201-202) were composed in the main of freshmen who entered from usually two, sometimes three, years of high school preparation and *who were screened at Tulane* by placement tests so as to admit in this level mainly those students for whom a prediction of "C or better""work could reasonably be made. In French 201-202 of 1961-62, for example, 74.2% of the students were such freshmen, and in the comparable Spanish, 79.7%. The experimental sections of that year (French and Spanish 205-206) contained no freshmen at all, but consisted of the unscreened continuing students from the elementary experimental sections of the previous year. In the third level of 1962-62, and thereafter, the comparisons are somewhat less anomalous, for we admitted screened freshmen into the experimental 305-306 as described in Part I. In that level and year the Tulane-Newcomb starters represented 38.6% of the experimentals and 9.2% of the controls.

2) Reading Skill.

There are in all 24 points of comparison between experimentals and controls in French and Spanish Tables and Figures 1.1-1.6 and 1.19-1.24. Of the 24, 19 show no significant difference, 3 comparisons show a statistically significant superiority in favor of the experimentals and 2 in favor of the controls. We regard this as one of the most important findings of the entire project. It proves, in effect, to any who may still doubt, that the audio-lingual sequence with its resolute postponement of reading in favor of a start in the spoken language does not imply a sacrifice of the reading skill

One can scarcely over-emphasize the weight of this fact in the context of a liberal arts program such as those at Tulane and Newcomb where the preferred goal of all language study be it English or a second language, is the effective study of literature at a mature level. For an audio-lingual program to have developed superiority in other skills without loss in this vital one, even against the odds described above in the testing, is a pivotal contribution to foreign language program planning

3) Listening Skill.

Again there are 24 points of comparison between experimentals and controls, found in Tables and Figures 1.7-1.12 and 1.25-1.30. The experimentals are significantly superior at the .05 level in 11 instances (French, 5; Spanish, 6) and show no significant difference at the other 13 points (French 7; Spanish, 6). In no case do the experimentals fall below the controls.

This showing is most properly a solid improvement over that in the reading comparisons, and we must insist that, due to conditions already explained that weight the outcome in favor of the controls, this analysis is a decidedly conservative statement of the achievement of the experimental students.

4) Speaking Skill.

In our oral production tests we have 23 points of comparison in Tables and Figures 1.13-1.18 and 1.31-1.36. The experimentals are significantly superior in 18 instances (8 French, 10 Spanish), and show no statistical difference at the 5 remaining points (4 French, 1 Spanish). Reference to Tables 1.37-1.42 shows that the superiority of the experimentals is usually significant to the .005 level.

It must be recalled that these tests, our UOP series, were in the process of development throughout the contract period. At the outset, particularly in the French, there can be seen a ceiling effect which precluded practically all detection of significant differences. We feel certain that had UOP-IV been available from the beginning we could have had a uniform record of superiority of the experimentals.

Without alibis, however, the conclusion is clear. Insofar as our objective in restructuring was to see whether we could hold our own in reading and improve significantly listening and speaking, the answer is an unequivocable yes.

5) Monitored versus Un-Monitored Elementary Level Experimentals.

Tables 1.42 and 1.43 present most of our statistically valid evidence on the question of the value of a working instructor at the laboratory console as opposed to a system in which the students do at least 62.5% of their work in an un-monitored library-lab.

On the one hand the data assure us that we may safely predict that a monitored group will always score higher on any kind of test than a library-lab counterpart. In those two tables the lead is 20 to 2 in the 22 available points of comparison. On the other hand, only on 6 occasions of the 20 is the significance of that lead at the .05 level or better.

The investigators of this project admit to having entertained a strong prejudice in favor of the principle of monitoring, and a more detailed analysis of the question is to be found in the vertical comparisons of Tables and Figures 2.1-2.16.

2. Vertical Trace Comparisons, 1960-1965.

As opposed to the preceding, the analysis found in the sixteen tables and graphs of this section has been devised to facilitate conclusions under the following circumstances:

a. Groups are homogeneous, being limited to those who began the language as freshmen in Tulane-Newcomb (except in the speaking tests).

b. The unknowns introduced by large numbers of students with high school preparation are eliminated.

c. The continuing effect (if any) of the kind of elementary instruction received may be percieved.

d. Rates of progress, spurts and plateaus may be observed.

e. Persistence of traits over three years may give the conclusions a degree of validity that statistical analysis at isolated points might not substantiate.

In examining the traces, two facts should be kept in mind concerning the third level: the students of the control groups in both French and Spanish had a choice of two terminal courses, one in literature and the other in conversation and composition; also, apparent wild deviation in patterns of progress at the third level may be accounted for at times by very small numbers in the terminal groups.

7.1 TRACE TABLE: 1960-1963

FRENCH READING COMPREHENSION

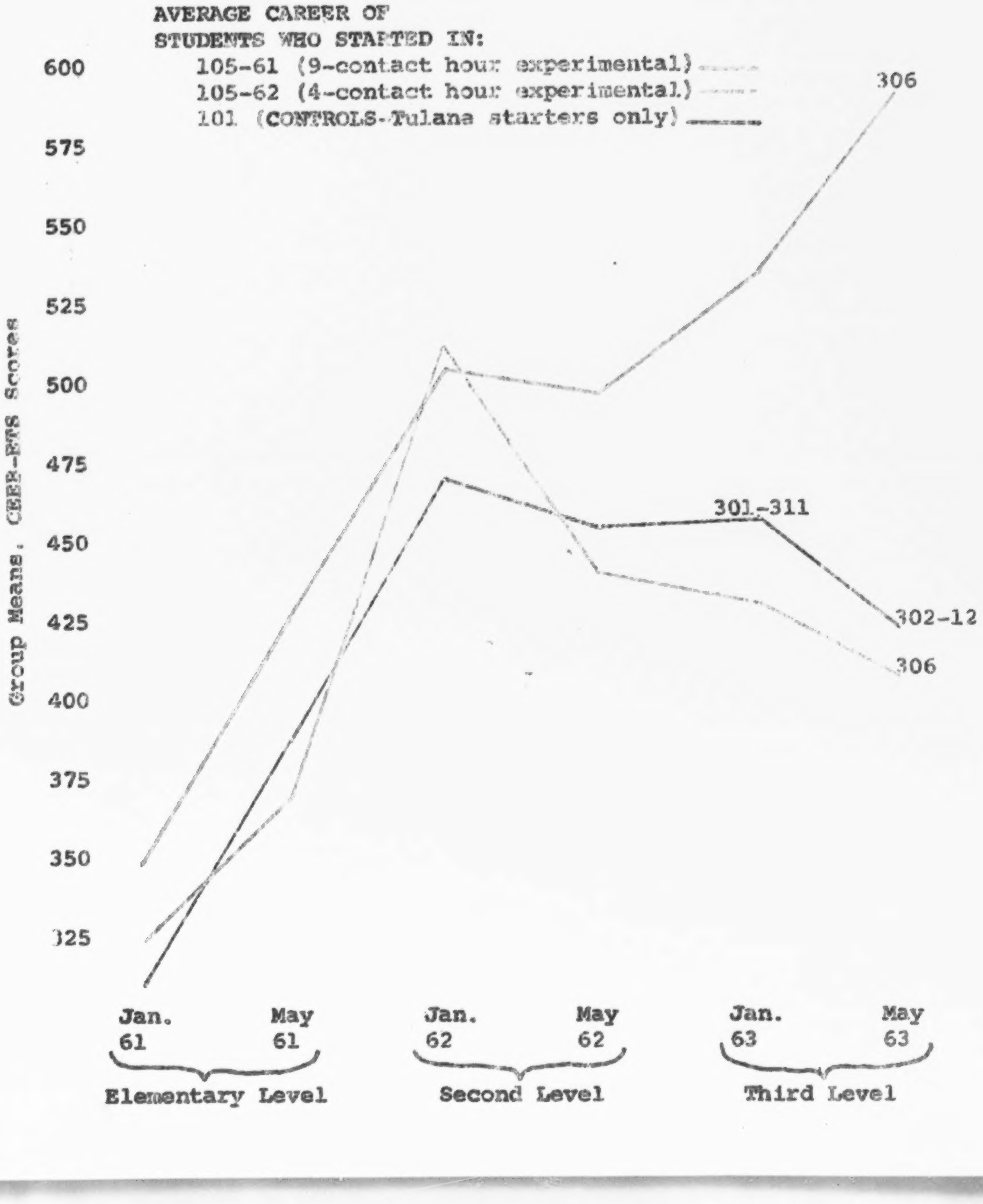
Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/60 Experiment)	1/61	105	EPL1*	18	350.39	
	5/61	106	EPL1*	15	427.73	54.75
	1/62	205	BPL2*	13	506.69	
	5/62	206	EPL1*	11	501.73	
	1/63	305	KPL1*	1	538.00	
	5/63	306	KPL2*	3	591.00	
105-62 (9/60 Experiment)	1/61	105	EPL1*	17	325.94	
	5/61	106	EPL1*	18	371.44	45.85
	1/62	205	BPL2*	13	514.31	
	5/62	206	EPL1*	12	447.33	
	1/63	305	KPL1*	4	433.75	
	5/63	306	KPL2*	2	410.50	
101 (9/60 Control)	1/61	101	EPL1*	123	310.53	
	5/61	102	EPL1*	93	390.12	
	1/62	201	BPL2*	57	474.94	
	5/62	202	EPL1*	49	462.31	
	1/63	301-11	KPL1*	12	463.58	
		315	KPL1*	1	495.00	
	5/63	302-12	KPL2*	5	425.80	
		316	KPL2*	1	562.00	

*CEEB-ETS Achievement Tests

Figure 2.1

FRENCH

THREE-YEAR TRACE CHART: READING COMPREHENSION 1960-1963



2.7 TRACE TABLE: 1960-1963

FRENCH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/60 Experiment)	1/61	105	IBA*	16	469.56	
	5/61	106	IBA*	15	525.40	47.16
	1/62	205	JBA*	13	485.46	
	5/62	206	JBA*	11	552.82	
	1/63	305	KPL1*	1	517.00	
	5/63	306	KPL2*	3	619.00	
105-62 (9/60 Experiment)	1/61	105	IBA*	17	442.53	
	5/61	106	IBA*	18	496.72	63.[illegible]
	1/62	205	JBA*	13	440.46	
	5/62	206	JBA*	12	510.00	
	1/63	305	KPL1*	4	494.00	
	5/63	306	KPL2*	2	548.00	
101 (9/60 Control)	1/61	101	IBA*	121	425.49	
	5/61	102	IBA*	93	453.63	
	1/62	201	JBA*	57	495.98	
	5/62	202	JBA*	51	513.33	
	1/63	301-11	KPL1*	12	522.58	
		315	KPL1*	1	517.00	
	5/63	302-12	KPL2*	5	475.80	
		316	KPL2*	1	553.00	

*CEEB-ETS Achievement Tests.

Figure 2.2

FRENCH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1960-1963

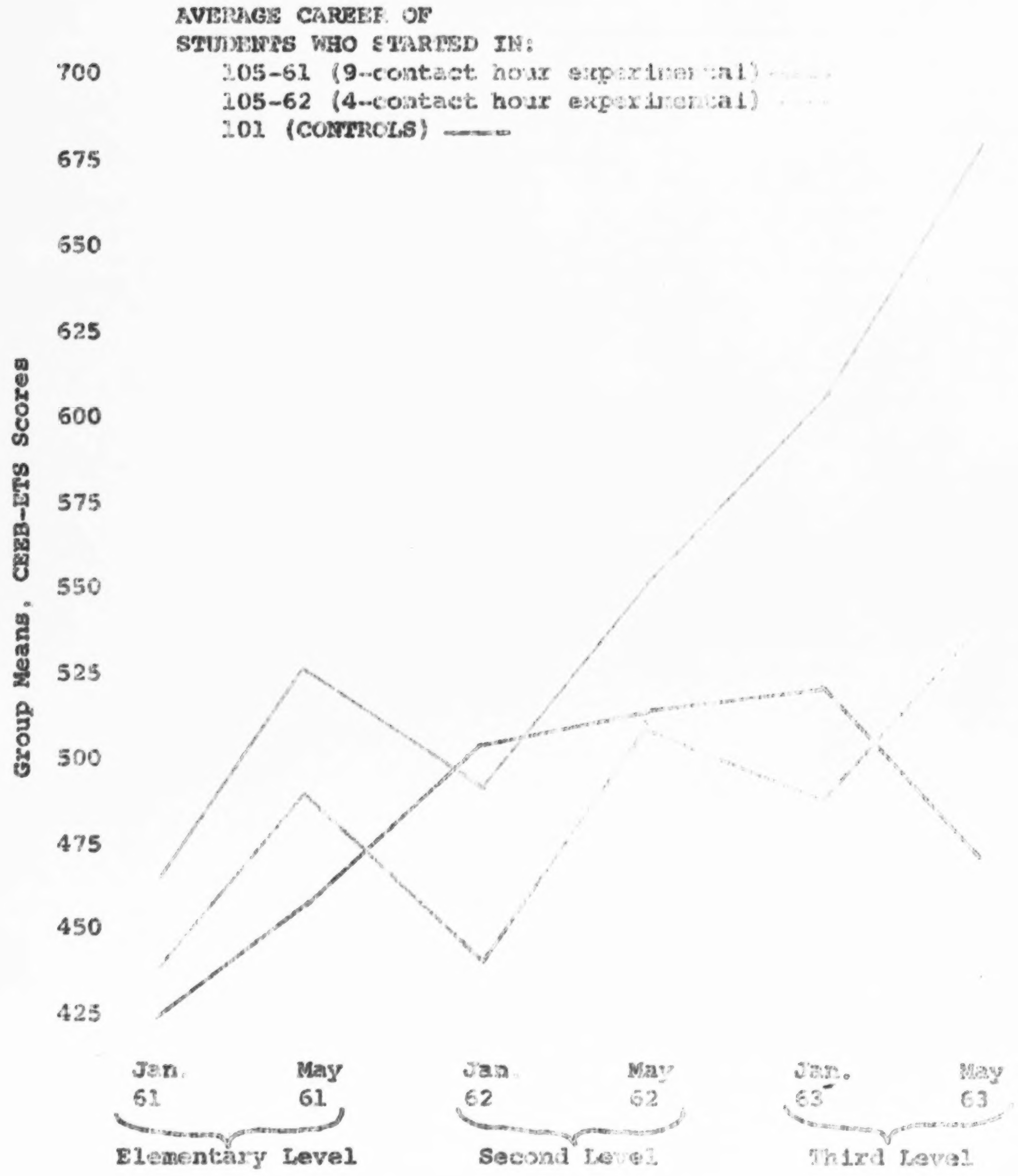


Table 2.3

FRENCH SPEAKING TESTS: THREE-YEAR TRACE

1960-1963

Group Starting in	End Course	Test Date	Test Version	No. Tested	Mean Score	Percent of Possible
105-61 (9/60 Experiment)	105	1/61	UOP-I		45	75.0
	106	5/61	UOP-II	15	62.27	83.0
	205	1/62	UOP-III	23	54.74	78.2
	206	5/62	UOP-III	19	75.15	71.5
	305	1/63	UOP-IV	15	41.07	82.1
	306	5/63	UOP-IV	13	43.62	87.2
105-62 (9/60 Experiment)	105	1/61	UOP-I		44.8	73.3
	106	5/61	UOP-II	18	61.78	82.4
	Hereafter fused with 105-61.					
101 (9/60 Controls)	101	1/61	UOP-I		44.0	73.3
	102	5/61	UOP-II	100	59.22	78.9
	201	1/62	UOP-III	164	46.05	65.8
	202	5/62	UOP-III	40	59.73	56.9
	301-11	1/63	UOP-IV	48	30.15	60.3
	315	1/63	UOP-IV	13	34.85	69.7
	302-12	5/63	UOP-IV	33	33.55	67.1
	316	5/63	UOP-IV	13	41.00	82.0

Figure 2.3

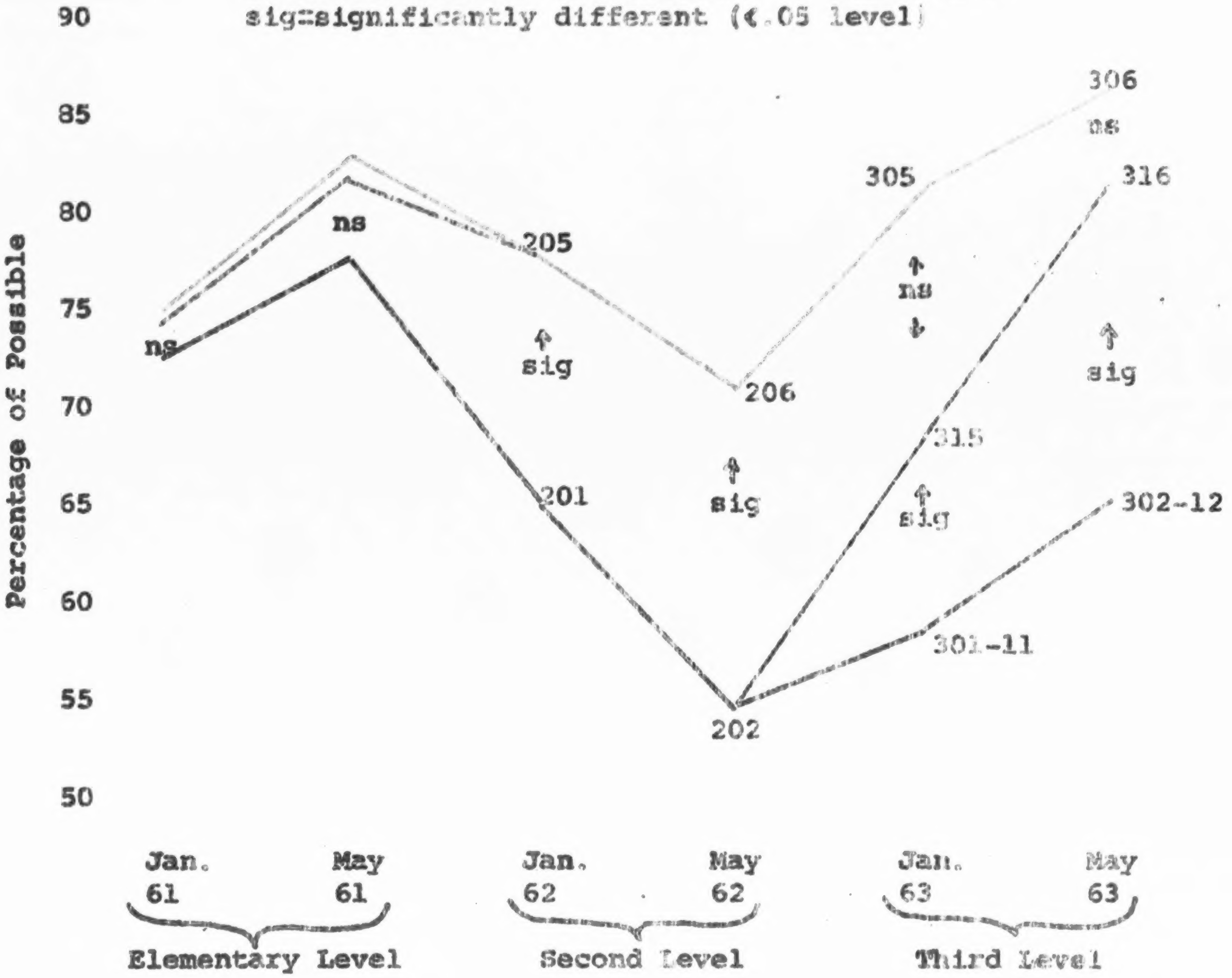
FRENCH SPEAKING: THREE-YEAR TRACE

1960-1963

(Four versions of locally-prepared test used. Mean scores given in terms of "percentage of possible" on each test version.)

AVERAGE CAREER OF
STUDENTS WHO STARTED IN:
105-61 (9-contact hour experimental) ——— } combined after
105-62 (4-contact hour experimental) ——— } first year.
101 (CONTROLS) ———

ns=no statistical significance in difference
sig=significantly different (<.05 level)



2.4 TRACE TABLE: 1961-1964

FRENCH READING COMPREHENSION

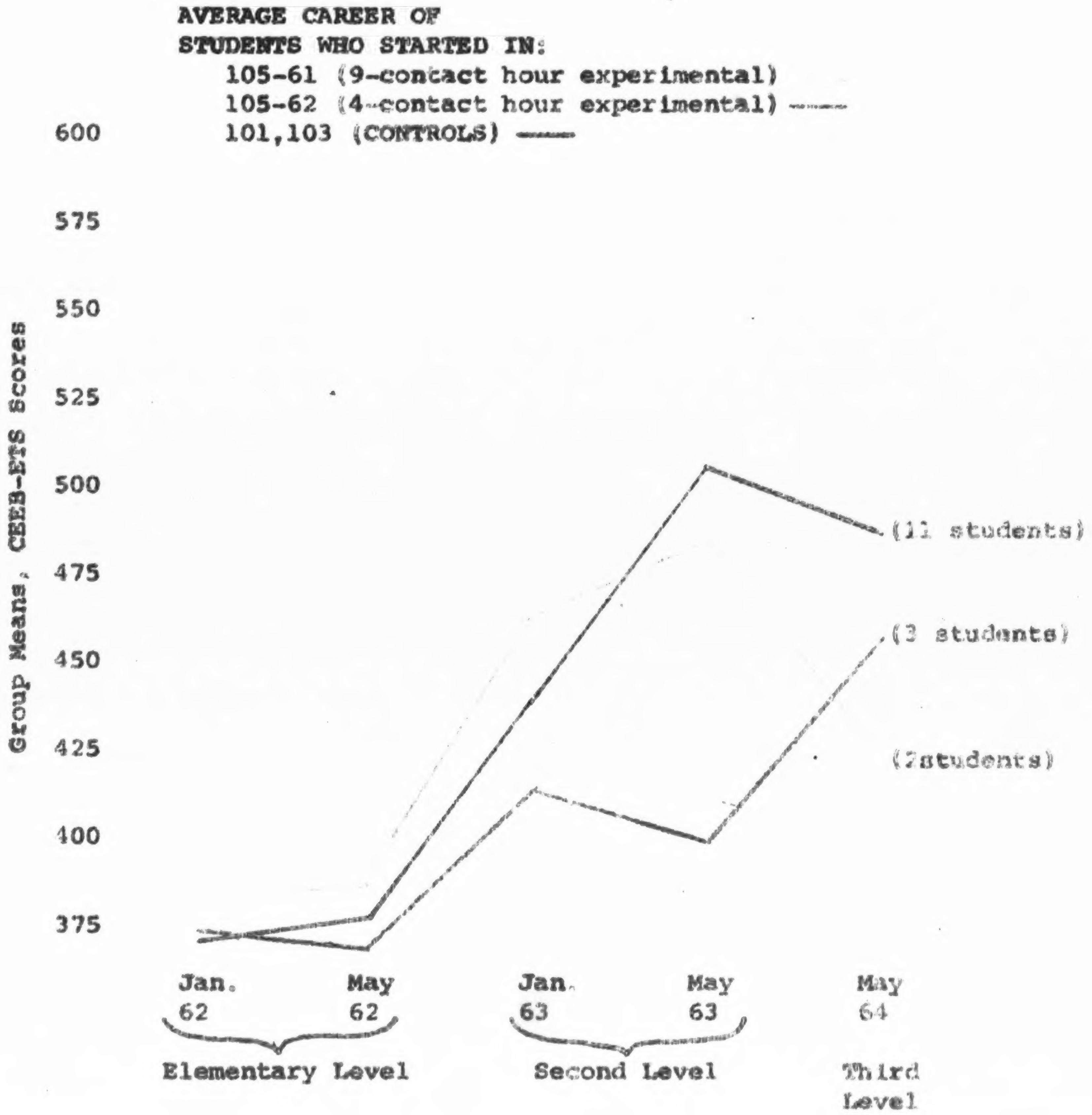
Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/61 Experiment)	1/62	105	BPL2*	17	383.35	56.06
	5/62	106	EPL1*	15	386.67	72.05
	1/63	205	KPL1*	11	463.09	
	5/63	206	KPL2*	11	486.91	
	5/64	306	KPL1*	2	426.00	
105-62 (9/61 Experiment)	1/62	105	BPL2*	16	376.75	41.03
	5/62	106	EPL1*	13	373.31	
	1/63	205	KPL1*	7	422.41	
	5/63	206	KPL2*	7	406.71	
	5/64	306	KPL1*	3	465.33	
101 (9/61 Control)	1/62	101	BPL2*	106	375.37	34.34
	5/62	102	EPL1*	74	378.80	
	1/63	201	KPL1*	51	445.06	
	5/63	202	KPL2*	35	504.03	
	5/64	302-12	KPL1*	11	484.91	

*CEEB-ETS Achievement Tests.

Figure 2.4

FRENCH

THREE-YEAR TRACE CHART: READING COMPREHENSION 1961-1964



2.5 TRACE TABLE: 1961-1964

FRENCH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/61 Experiment)	1/62	105	JBA*	17	470.00	53.58
	5/62	106	JBA*	15	524.66	
	1/63	205	KPL1*	11	528.45	
	5/63	206	KPL2*	11	556.45	
	5/64	306	KPL1*	2	592.00	
105-62 (9/61 Experiment)	1/62	105	JBA*	15	456.53	
	5/62	106	JBA*	13	487.69	
	1/63	205	KPL1*	7	495.00	
	5/63	206	KPL2*	7	502.43	
	5/64	306	KPL1*	3	540.00	
101 (9/62 Control)	1/62	101	JBA*	106	458.48	51.99
	5/62	102	JBA*	74	479.70	
	1/63	201	KPL1*	51	479.96	
	5/63	202	KPL2*	34	508.00	
	5/64	302-12	KPL1*	11	513.00	

*CEEB-ETS Achievement Tests.

Figure 2.5

FRENCH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1961-1964

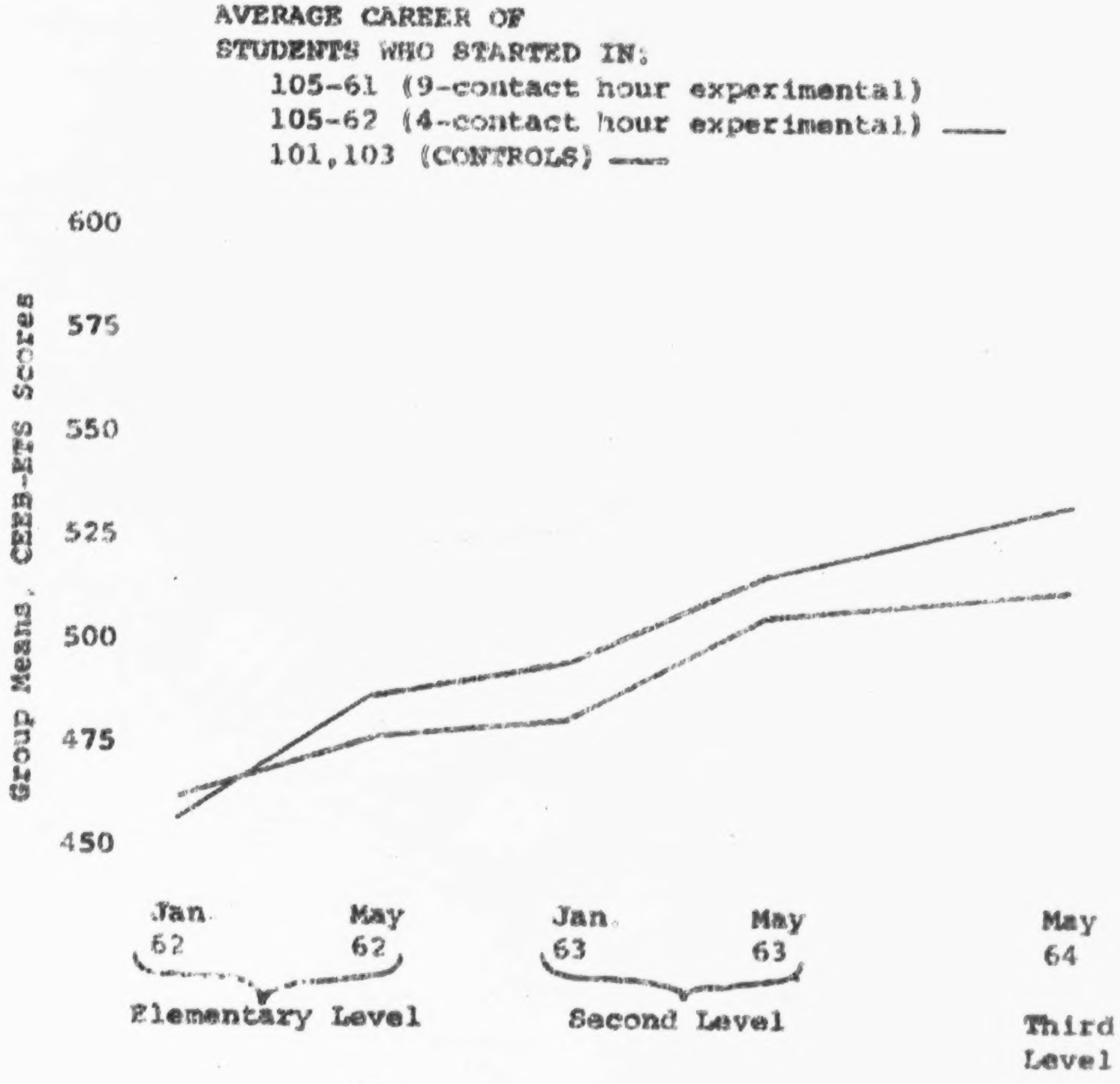


Table 2.6

FRENCH SPEAKING TESTS: TWO-YEAR TRACE

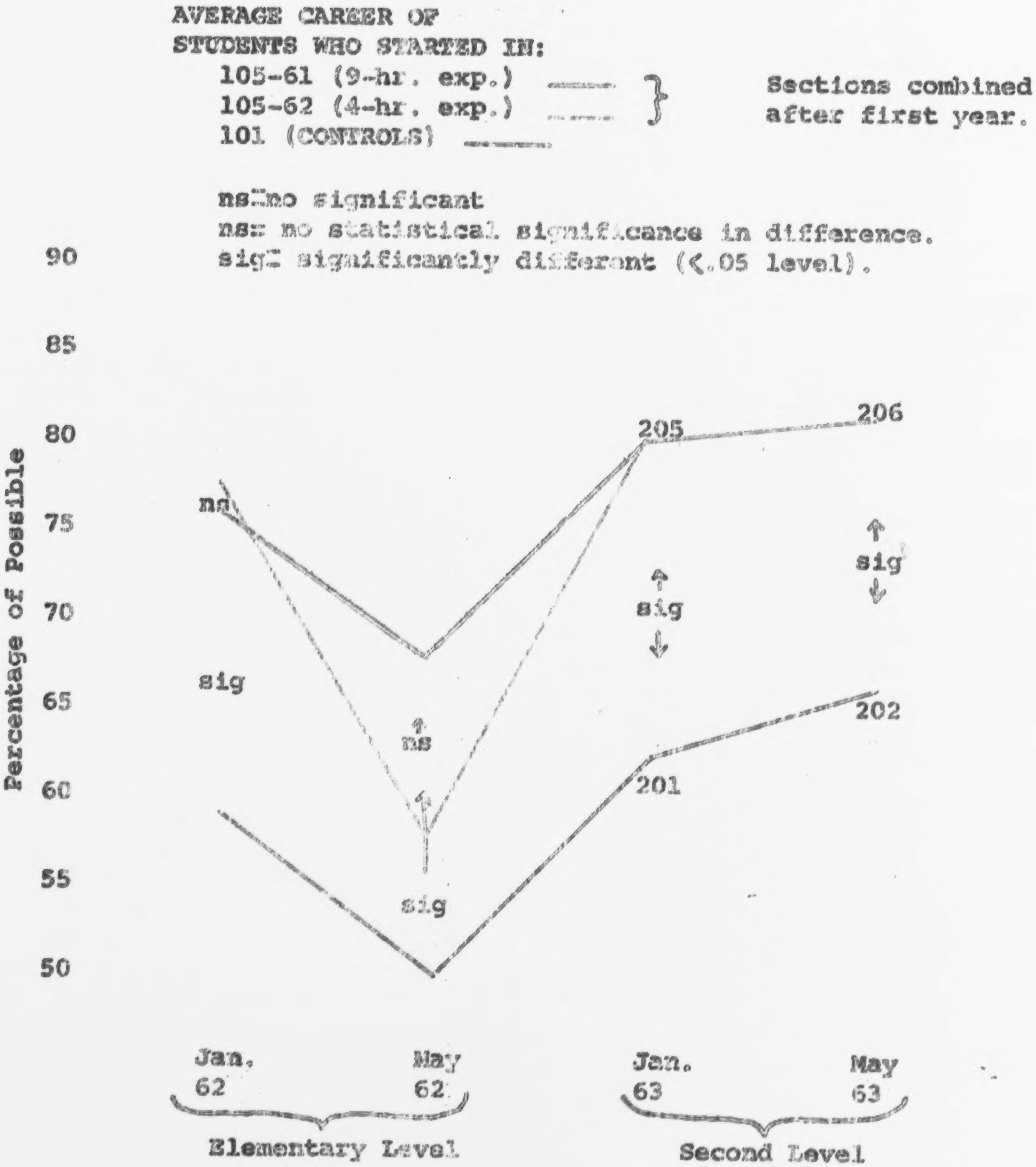
1961-1963

Group Starting in	End Course	Test Date	Test Version	No. Tested	Mean Score	Percent of Possible
105-61 (9/61 Experiment)	105	1/62	UOP-III	16	53.88	76.9
	106	5/62	UOP-III	14	70.86	67.5
	205	1/63	UOP-IV	17	39.71	79.4
	206	5/63	UOP-IV	18	40.72	81.4
105-62 (9/61 Experiment)	105	1/62	UOP-III	15	54.47	77.8
	106	5/62	UOP-III	13	60.94	58.0
101 (9/61 Controls)	101	1/62	UOP-III	102	41.57	59.3
	102	5/62	UOP-III	49	52.74	50.2
	201	1/63	UOP-IV	29	31.52	63.0
	202	5/63	UOP-IV	39	33.59	67.1

Figure 2.6

FRENCH SPEAKING TEST: TWO-YEAR TRACE

1961-1963



2.7 TRACE TABLE: 1962-1965

FRENCH READING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/62 Experiment)	1/63	105	KPL1*	16	336.63	32.72
	5/63	106	KPL2*	14	373.86	47.71
	5/64	206	KPL1*	11	512.09	
	5/65	306	MA**	5	174	
105-62 (9/62 Experiment)	1/63	105	KPL1*	15	331.73	39.95
	5/63	106	KPL2*	13	340.31	51.27
	5/64	206	KPL1*	8	425.00	
	5/65	306	MA**	4	179	
101 (9/63 Control)	1/63	101	KPL1*	101	339.31	56.62
	5/63	102	KPL2*	73	402.48	
	5/64	202	KPL1*	33	459.03	
	5/65	306	MA**	7	175	
		312	MA**	6	178	
		316	MA**	3	171	

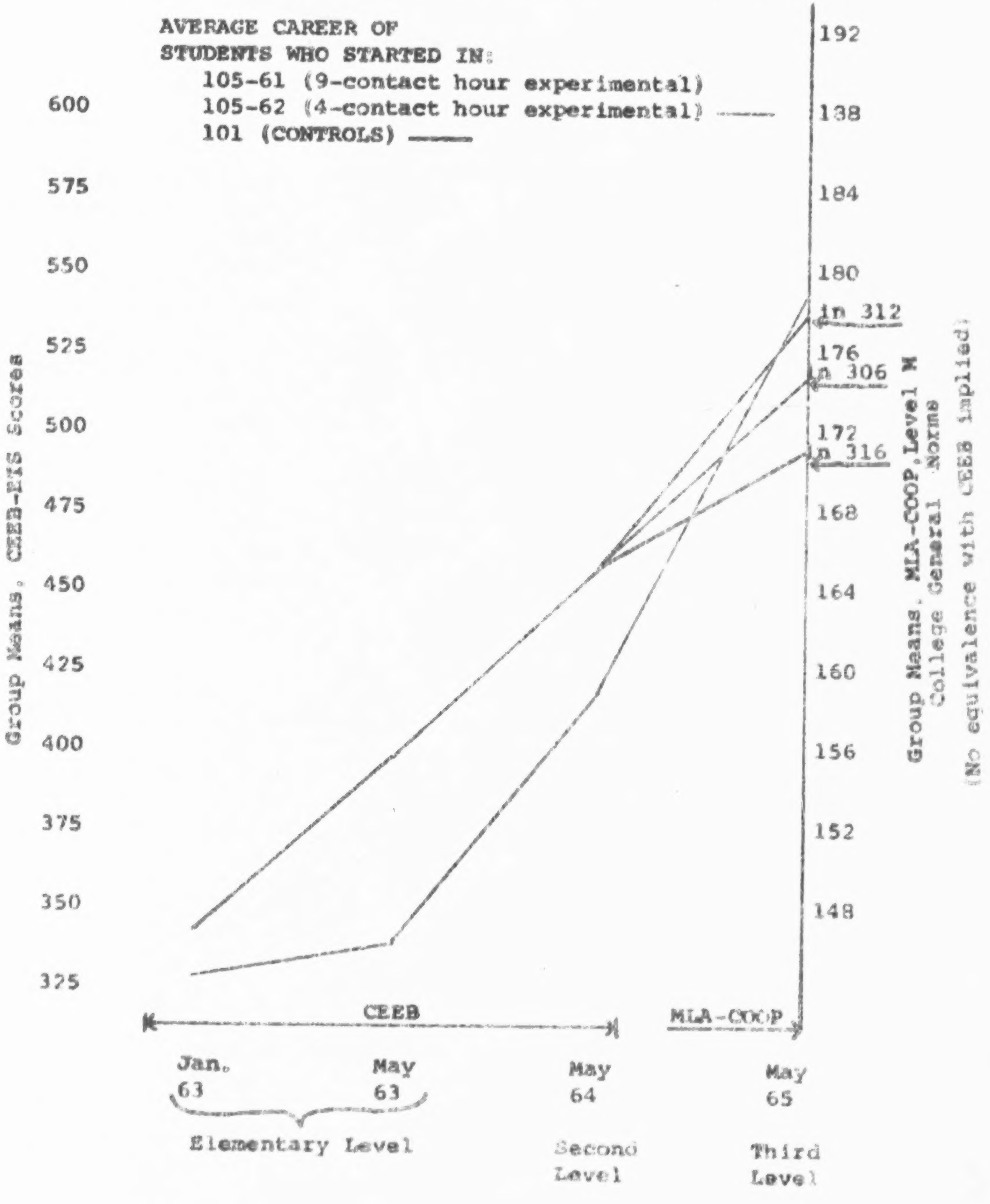
*CEEB-ETS Achievement Tests.

**MLA-COOP Achievement Tests.

Figure 2.7

FRENCH

THREE-YEAR TRACE CHART: READING COMPREHENSION 1962-1965



2.8 TRACE TABLE: 1962-1965

FRENCH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/62 Experimental)	1/63	105	KPL1*	16	434.31	50.65
	5/63	106	KPL2*	14	467.14	61.66
	5/64	206	KPL1*	11	549.64	
	5/65	306	MA**	5	172	
105-62 (9/62 Experimental)	1/63	105	KPL1*	15	444.93	83.15
	5/63	106	KPL2*	13	448.62	29.54
	5/64	206	KPL1*	8	481.25	
	5/65	306	MA**	4	172	
101 (9/62 Control)	1/63	101	KPL1*	101	423.85	65.55
	5/63	102	KPL2*	73	481.37	72.44
	5/64	202	KPL1*	34	506.23	
	5/65	306	MA**	7	166	
		312	MA**	6	175	
		316	MA**	3	152	

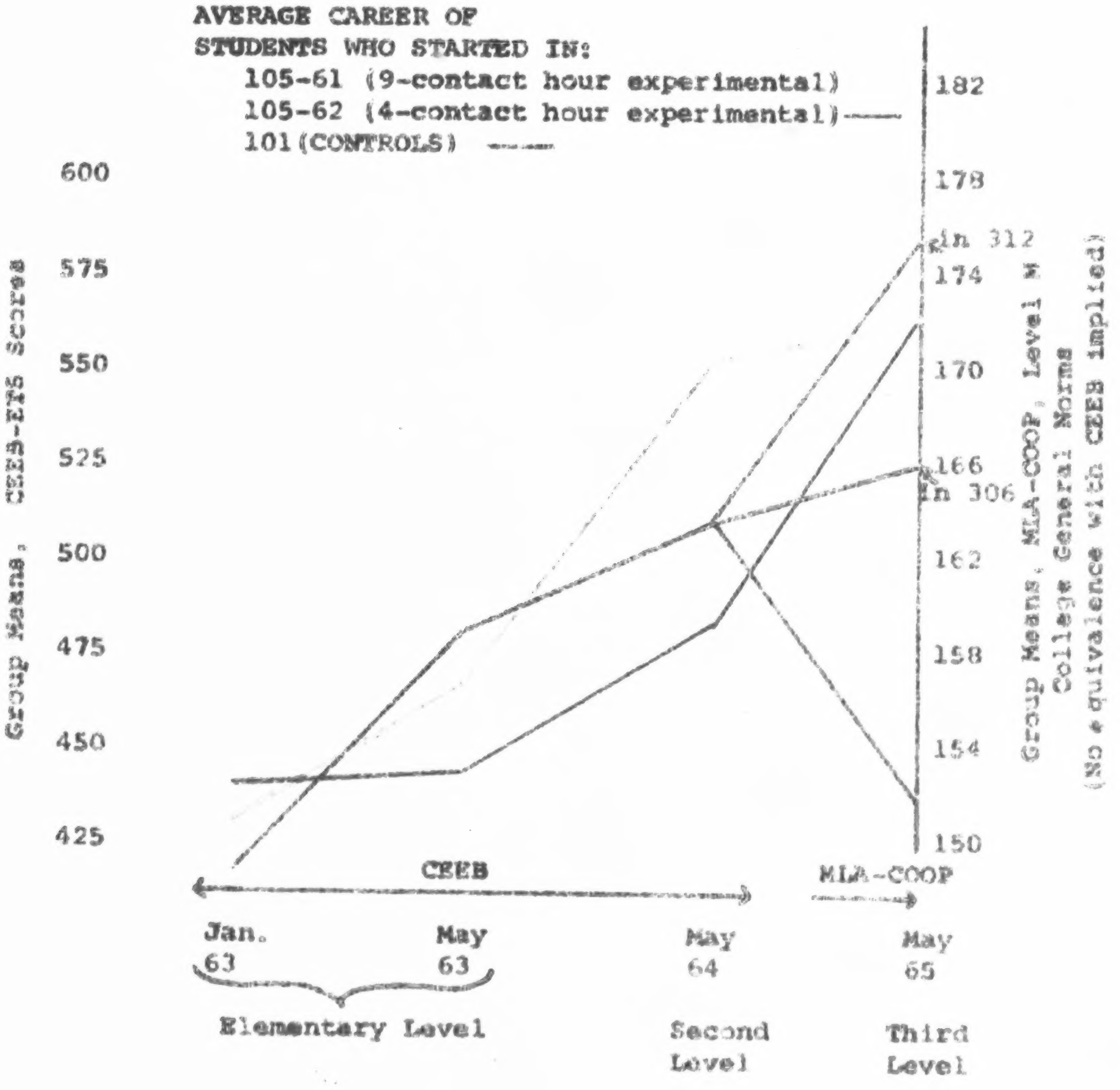
*CEEB-ETS Achievement Tests.

**MLA-COOP Achievement Tests.

Figure 2.8

FRENCH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1962-1965



2.9 TRACE TABLE: 1960-1963

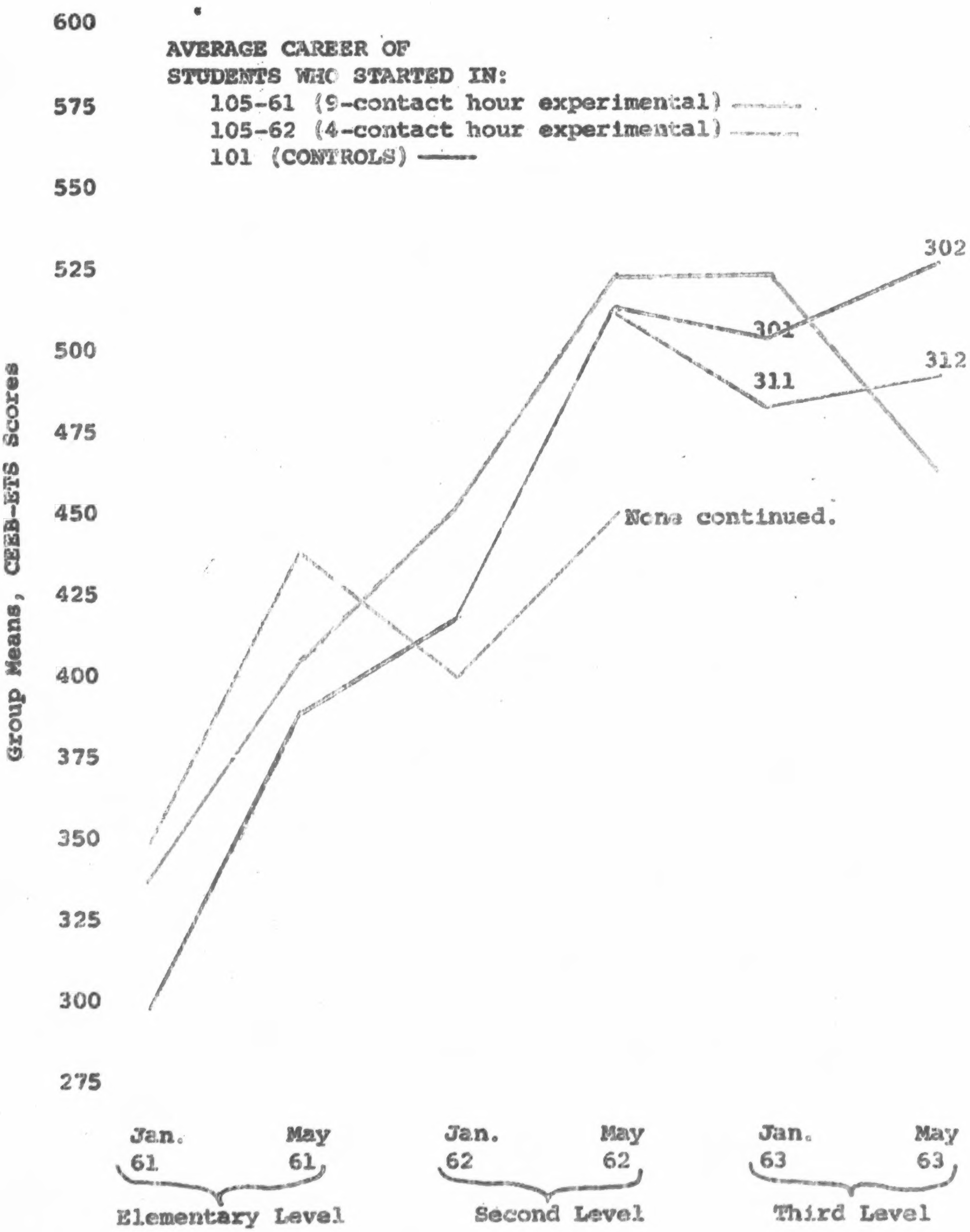
SPANISH READING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test (CEEB)	No. Stud.	Mean Score	Standard Deviation
105-61 (9/60 Experiment)	1/61	105	EPL1	12	337.67	
	5/61	106	EPL1	12	403.08	49.36
	1/62	205	BPL2	10	450.00	
	5/62	206	BPL2	10	524.20	
	1/63	305	KPL1	2	523.00	
	5/63	306	KPL2	2	467.05	
105-62 (9/60 Experiment)	1/61	105	EPL1	11	349.00	
	5/61	106	EPL1	11	438.73	108.05
	1/62	205	BPL2	6	399.17	
	5/62	206	BPL2	5	462.60	
	1/63	305	KPL1	0		
	5/63	306	KPL2	0		
101 (9/60 Control)	1/61	101	EPL1	109	297.57	
	5/61	102	EPL1	93	388.28	77.91
	1/62	201	BPL2	37	414.05	
	5/62	202	BPL2	36	513.67	
	1/63	301	KPL1	5	504.60	
		311	KPL1	7	484.85	
	5/63	302	KPL2	2	526.50	
		312	KPL2	6	492.00	

Figure 2.9

SPANISH

THREE-YEAR TRACE CHART: READING COMPREHENSION 1960-1963



2.10 TRACE TABLE: 1960-1963

SPANISH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test (CEEB)	No. Stud.	Mean Score	Standard Deviation
105-61 (9/60 Experiment)	1/61	105	IBA	12	483.67	
	5/61	106	IBA	12	541.42	63.63
	1/62	205	JBA	10	531.70	
	5/62	206	JBA	10	564.60	
	1/63	305	KPL1	2	685.00	
	5/63	306	JPL	2	639.50	
105-62 (9/60 Experiment)	1/61	105	IBA	11	476.00	
	5/61	106	IBA	11	500.00	68.86
	1/62	205	JBA	6	500.00	
	5/62	206	JBA	5	562.20	
	1/63	305	KPL1	0		
	5/63	306	JPL	0		
101 (9/60 Control)	1/61	101	IBA	109	435.56	
	5/61	102	IBA	93	473.12	78.58
	1/62	201	JBA	39	447.00	
	5/62	202	JBA	34	521.12	
	1/63	301	KPL1	5	534.20	
		311	KPL1	7	511.71	
	5/63	302	KPL2	2	539.00	
		312	KPL2	6	572.50	

Figure 2.10

SPANISH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1960-1963

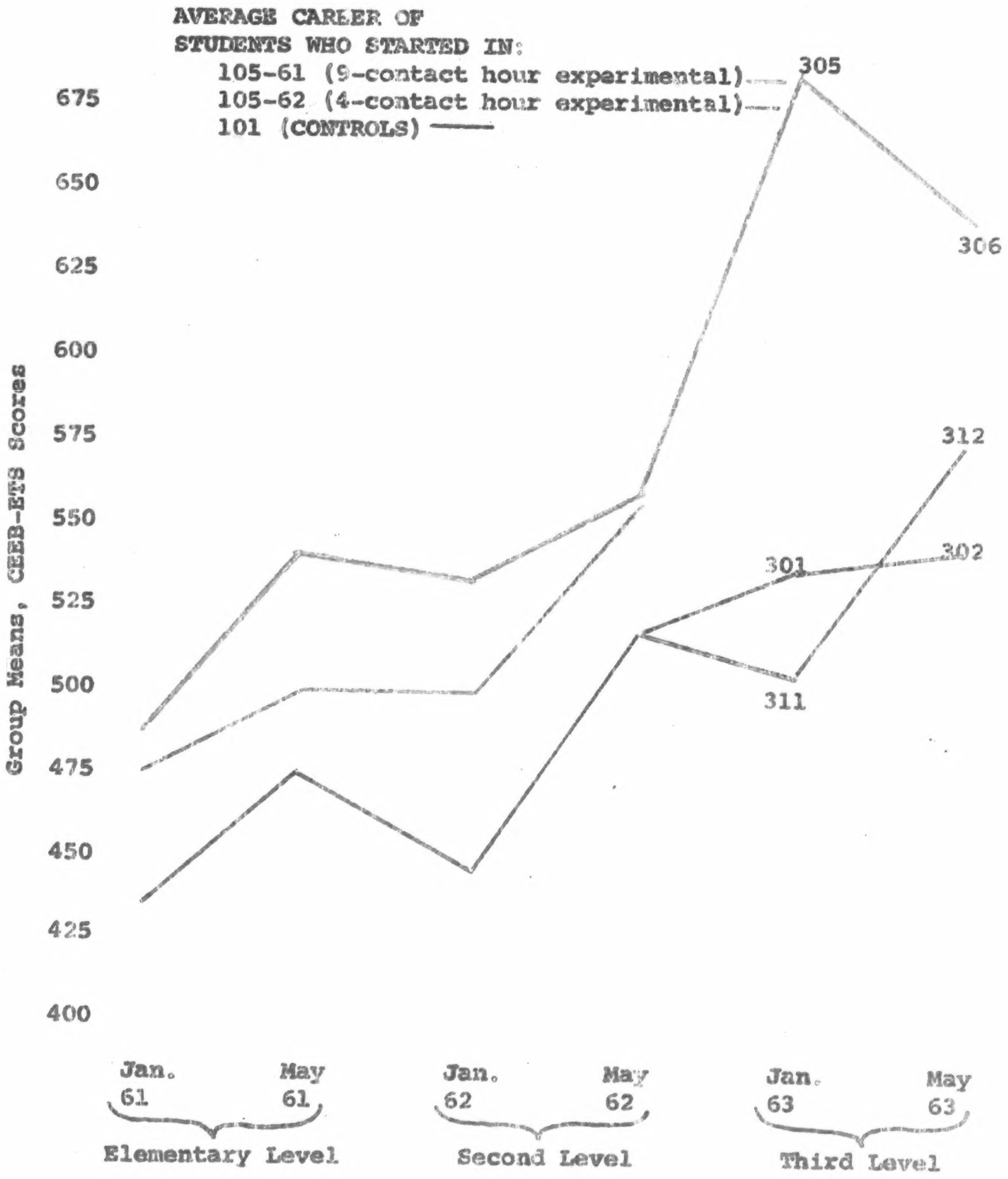


Table 2.11

SPANISH SPEAKING TESTS: THREE-YEAR TRACE

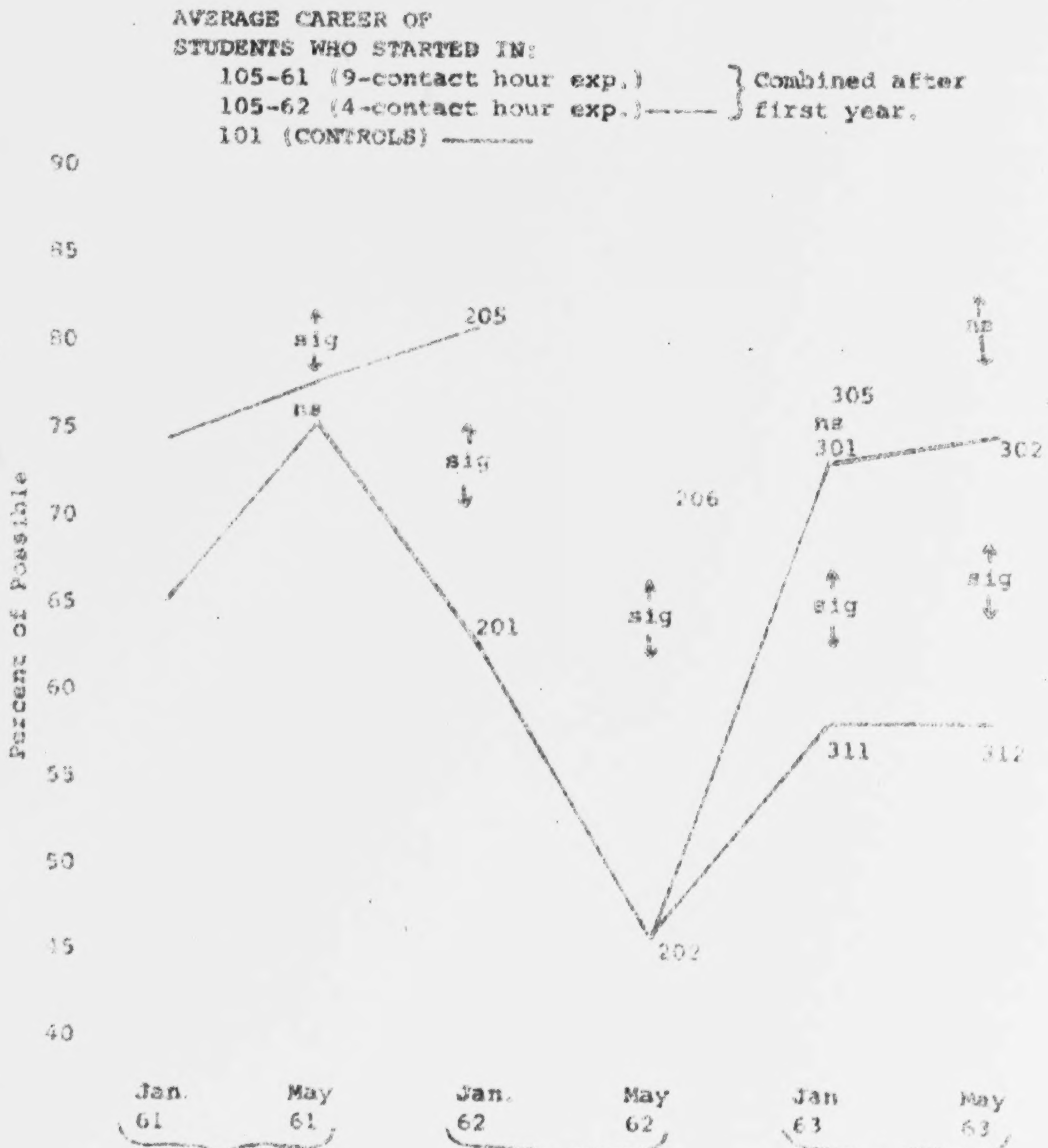
1960-1963

roup tarting in	End Course	Test Date	Test Version	No. Tested	Mean Score	Percent o Possible
05-61 (9/60 Experiment)	105	1/61	UOP-I	12	47.8	79.7
	106	5/61	UOP-II	12	66.17	82.7
	205	1/62	UOP-III	15	56.07	80.1
	206	5/62	UOP-III	13	75.61	72.0
	305	1/63	UOP-IV	7	43.00	78.2
	306	5/63	UOP-IV	7	48.29	87.8
05-62 (9/60 Experiment)	105	1/61	UOP-I	11	44.7	74.5
	106	5/61	UOP-II	11	61.91	77.4
	Hereafter fused with 105-61.					
01(3) 9/60 Controls	101	1/61	UOP-I	97	39.3	65.5
	102	5/61	UOP-II	89	61.08	76.35
	201	1/62	UOP-III	156	44.17	63.1
	202	5/62	UOP-III	80	49.90	47.5
	301	1/63	UOP-IV	8	40.50	73.8
	311	1/63	UOP-IV	41	32.12	58.2
	302	5/63	UOP-IV	9	41.77	75.9
	312	5/63	UOP-IV	42	32.36	58.8

Figure 2.11

SPANISH SPEAKING TEST: THREE-YEAR TRACK

1960-1963



2.12 TRACE TABLE: 1961-1964

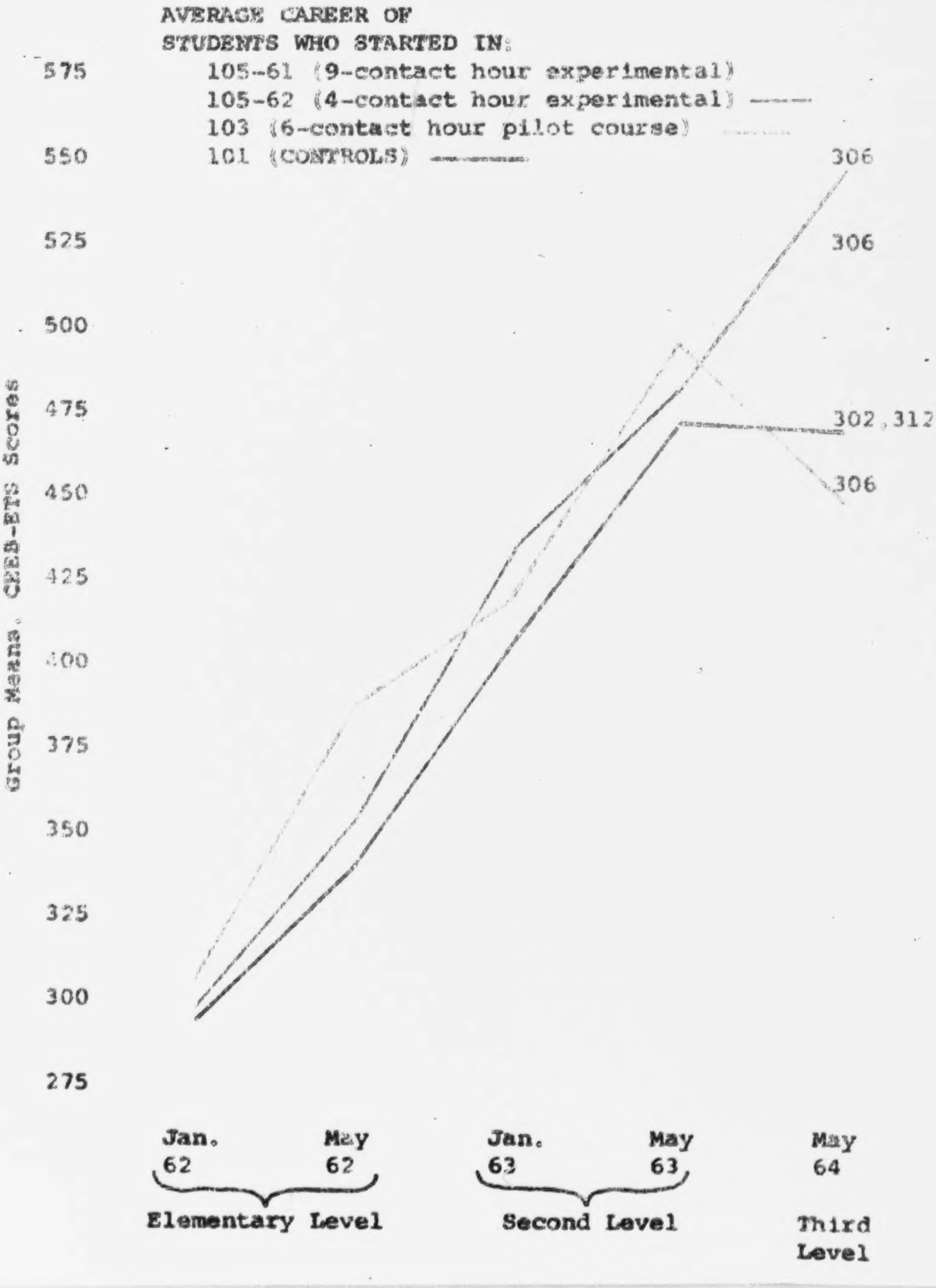
SPANISH READING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test (CEEB)	No. Stud.	Mean Score	Standard Deviation
105-61 (9/61 Experimental)	1/62	105	BPL2	14	323.50	57.83
	5/62	106	BPL2	10	398.70	82.32
	1/63	205	KPL1	8	460.25	
	5/63	206	KPL2	7	489.43	
	5/64	306	KPL1	4	525.50	
105-62 (9/61 Experimental)	1/62	105	BPL2	16	298.81	58.95
	5/62	106	BPL2	15	355.26	
	1/63	205	KPL1	8	438.87	
	5/63	206	KPL2	8	479.00	
	5/64	306	KPL1	3	548.00	
103 (9/61 Pilot Class)	1/62	103	BPL2	23	305.56	40.26
	5/62	104	BPL2	20	391.10	67.60
	1/63	205	KPL1	12	427.75	
	5/63	206	KPL2	10	492.70	
	5/64	306	KPL1	3	452.66	
101 (9/61 Control)	1/62	101	BPL2	81	297.25	56.89
	5/62	102	BPL2	52	342.80	
	1/63	201	KPL1	26	415.00	
	5/63	202	KPL2	15	471.53	
	5/64	302	KPL1	2	469.83	
		312	KPL1	4		

Figure 2.12

SPANISH

THREE-YEAR TRACE CHART OF READING COMPREHENSION 1961-1964



2.13 TRACE TABLE: 1961-1964

SPANISH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test (CEEB)	No. Stud.	Mean Score	Standard Deviation
105-61 (9/61 Experiment)	1/62	105	JBA	14	447.14	62.26
	5/62	106	JBA	12	505.08	89.94
	1/63	205	KPL1	8	552.50	
	5/63	206	JPL	7	543.14	
	5/64	306	KPL1	4	653.50*	
105-62 (9/61 Experiment)	1/62	105	JBA	16	384.63	58.10
	5/62	106	JBA	15	460.50	
	1/63	205	KPL1	8	487.37	
	5/63	206	JPL	8	528.00	
	5/64	306	KPL1	3	658.00*	
103 (9/61 Pilot Class)	1/62	103	JBA	22	412.55	57.33
	5/62	104	JBA	19	476.53	66.29
	1/63	205	KPL1	12	496.66	
	5/63	206	JPL	10	553.40	
	5/64	306	KPL1	3	537.00	
101 (9/61 Control)	1/62	101	JBA	81	404.62	62.22
	5/62	102	JBA	53	467.53	
	1/63	201	KPL1	26	474.00	
	5/63	202	JPL	15	497.80*	
	5/64	302	KPL1	2	494.83*	
		312	KPL1	4		

*Some listening comprehension scores in 1964 adjusted to compensate for unsatisfactory listening conditions.

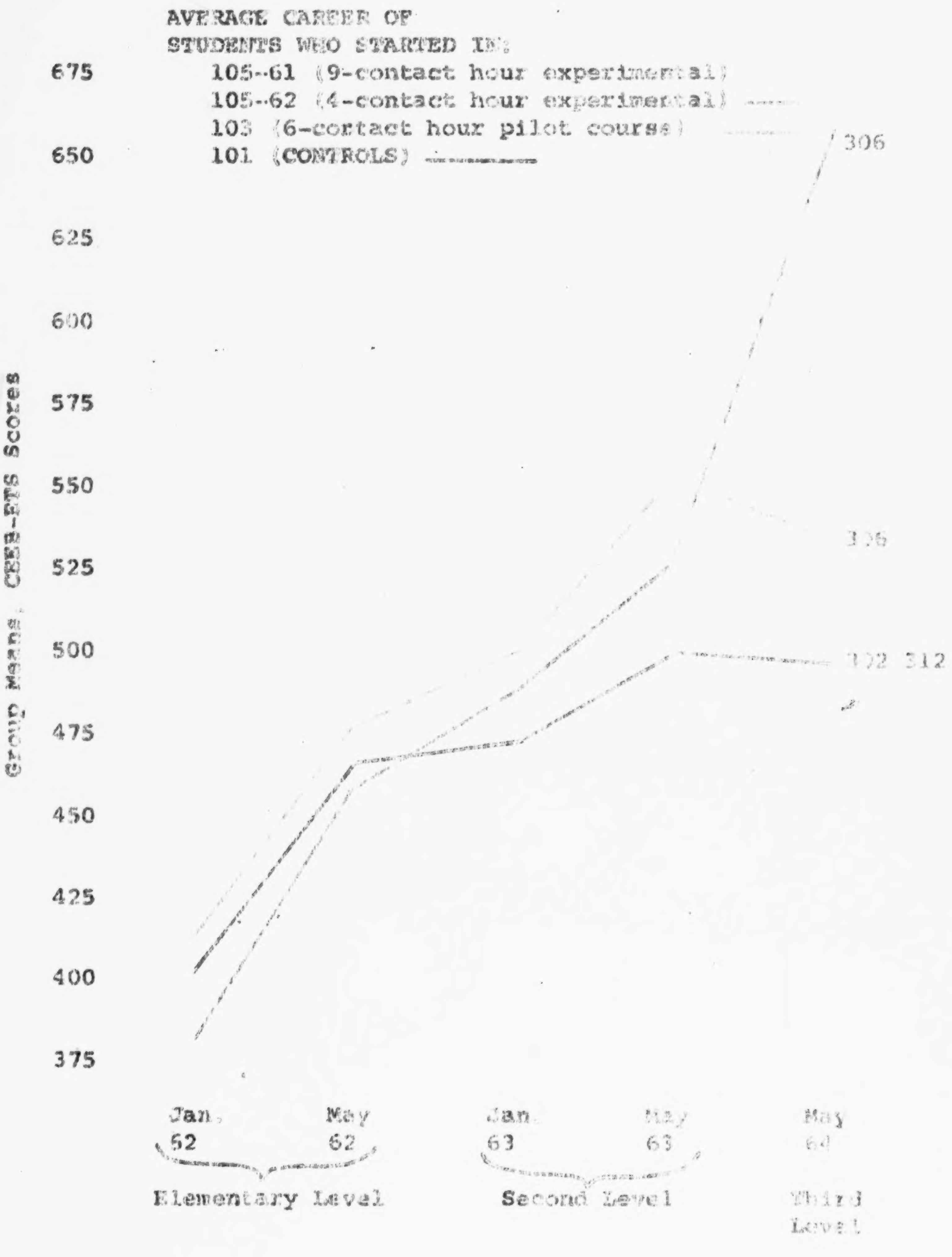


Figure 2.13

SPANISH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1961-1964

Table 2.14

SPANISH SPEAKING TESTS: TWO-YEAR TRACK

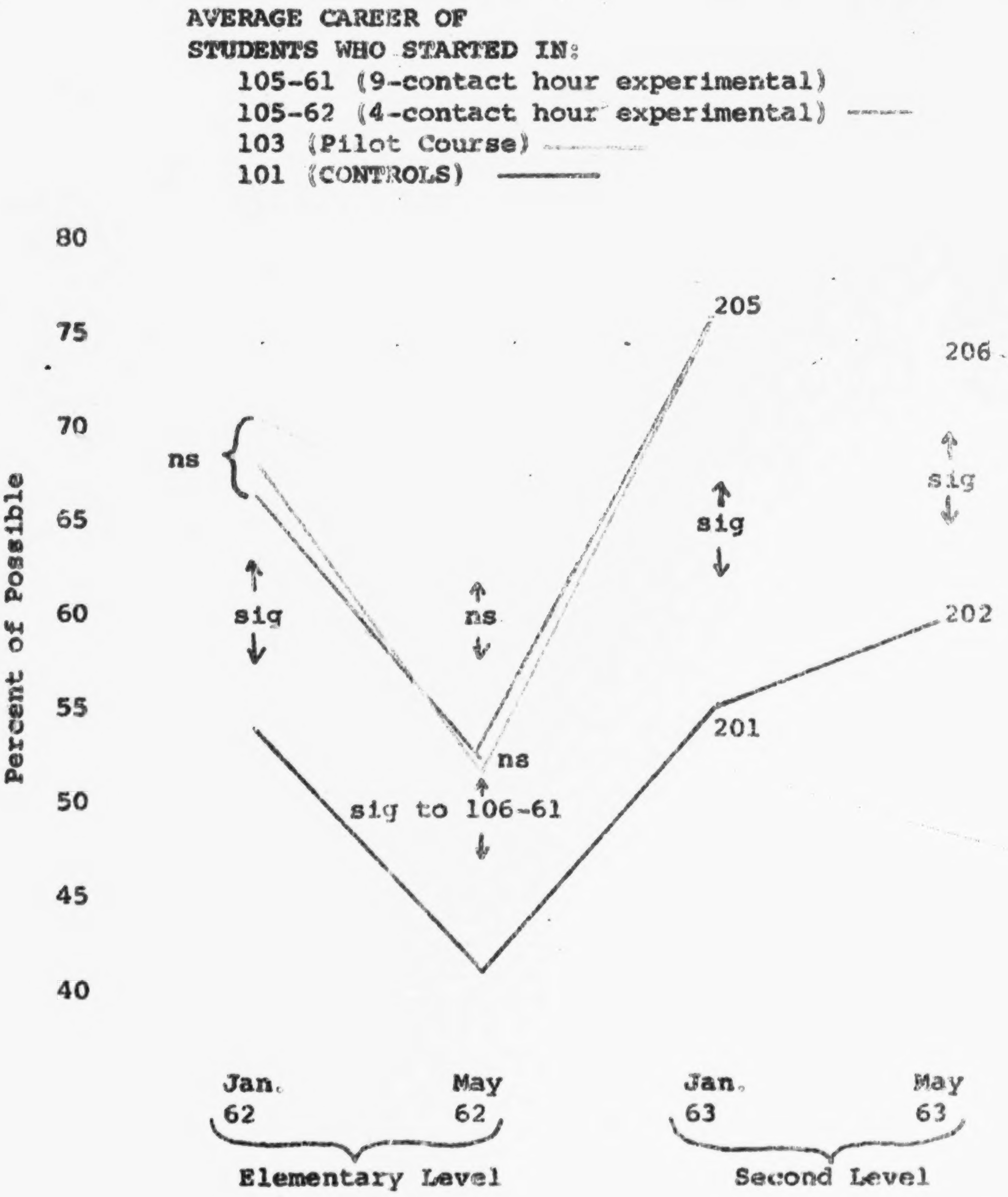
1961-1963

Group Starting in	End Course	Test Date	Test Version	No. Tested	Mean Score	Percent of Possible
105-61 (9/61) Experiment	105	1/62	MCP-III	[illegible]	65.[illegible]	70.5
	106	5/62	MCP-III	[illegible]	68.[illegible]	[illegible]
	105	1/63	MCP-[illegible]	20	81.[illegible]	[illegible]
	106	5/63	MCP-[illegible]	20	60.[illegible]	[illegible]
105-62 (9/62) Experiment	105	1/63	MCP-III	18	46.67	[illegible]
	106	5/63	MCP-III	[illegible]	58.[illegible]	[illegible]
	Thereafter merged with 105-61					
102 (9/61) Pilot Course	101	1/62	MCP-III	20	67.60	68.0
	102	5/62	MCP-III	20	57.65	[illegible]
	Thereafter merged with 105-61					
101 (9/61) Control	101	1/62	MCP-III	[illegible]	57.82	54.0
	102	5/62	MCP-III	[illegible]	62.42	[illegible]
	[illegible]	1/63	MCP-[illegible]	[illegible]	50.[illegible]	55.5
	[illegible]	5/63	MCP-[illegible]	[illegible]	57.[illegible]	60.2

Figure 2.14

SPANISH SPEAKING TESTS: TWO-YEAR TRACE

1961-1963



2.15 TRACK TABLES (1962-1965)

SPANISH READING COMPREHENSION

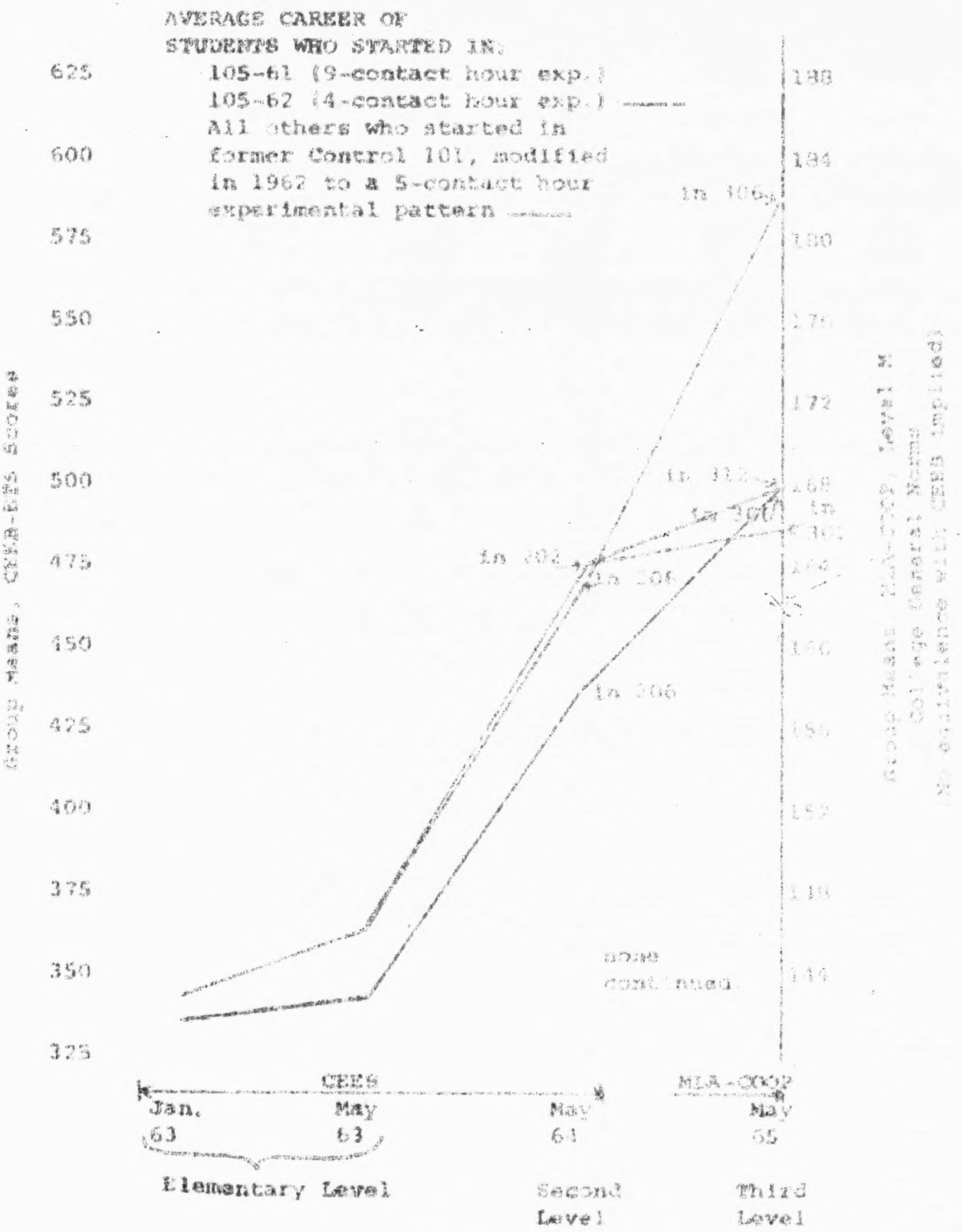
Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standard Deviation
105-61 (9/62 Experiment)	1/63	105	KPL1*	7	345.00	35.05
	5/63	106	KPL2*	6	388.67	66.89
	5/64	206	KPL1*	2	355.00	
	5/65	306	MA**	0		
105-62 (9/62 Experiment)	1/63	105	KPL1*	7	337.14	46.40
	5/63	106	KPL2*	7	344.57	68.99
	5/64	206	KPL1*	5	440.00	
	5/65	306	MA**	2	168	
101 (9/26 Control modified to Experimental pattern.	1/63	101	KPL1*	67	341.36	51.95
	5/63	102	KPL2*	55	364.00	
	5/64	202	KPL1*	12	473.50	
		206	KPL1*	11	464.18	
	5/65	302	MA**	4	166	
		306	MA**	2	182	
		312	MA**	5	168	

*CEEB-ETS Achievement Tests
**MLA-COOP Achievement Tests

Figure 2.15

SPANISH

THREE-YEAR TRACE CHART: READING COMPREHENSION 1963-1965



2.16 TRACE TABLE: 1962-1965

SPANISH LISTENING COMPREHENSION

Group Starting in	Date Tested	At End Course	Test	No. Stud.	Mean Score	Standar Deviatio
105-61 (9/62 Experiment)	1/63	105	KPL1*	7	414.43	55.13
	5/63	106	JPL*	6	455.83	39.73
	5/64	206	KPL1*	2	473.00	
	5/65	306	MA***	0		
105-62 (9/62 Experiment)	1/63	105	KPL1*	7	395.29	71.12
	5/63	106	JPL*	7	451.00	79.27
	5/64	206	KPL1*	5	506.20**	
	5/65	306	MA***	2	168	
101 (9/62 Control modified to Experimental pattern)	1/63	101	KPL1*	67	397.96	63.60
	5/63	102	JPL*	55	452.24	
	5/64	202	KPL1*	11	498.45**	
		206	KPL1*	10	523.30**	
	5/65	302	MA***	4	164	
		306	MA***	2	180	
		312	MA***	5	166	

*CEEB-ETS Achievement Tests.

**Some listening comprehension scores in 1964 (May) adjusted to comp

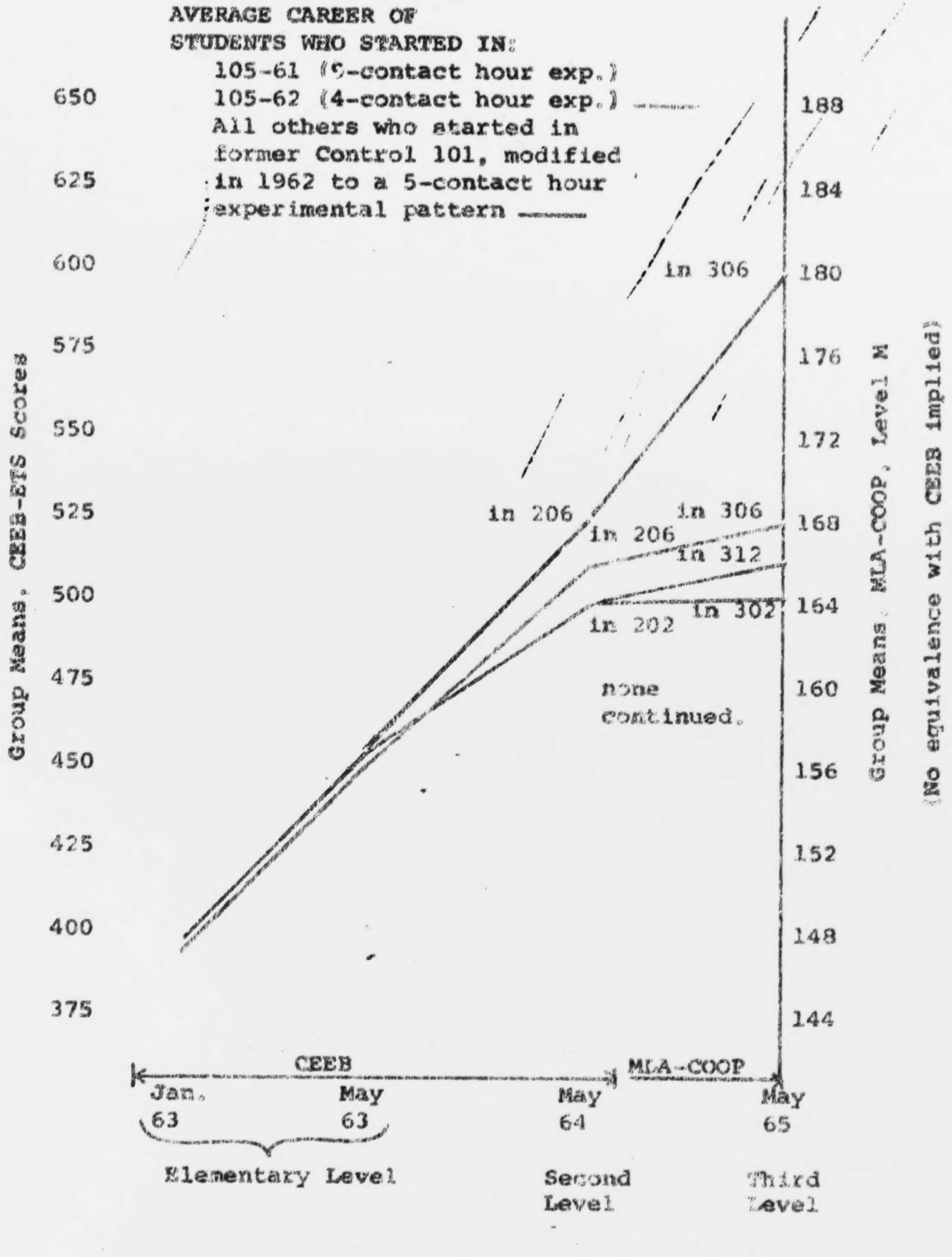
for unsatisfactory listening conditions.

***MLA-COOP Achievement Tests.

Figure 2.16

SPANISH

THREE-YEAR TRACE CHART: LISTENING COMPREHENSION 1962-1965



IV. 2. a. INVESTIGATORS OBSERVATIONS, VERTICAL TRACE COMPARISONS.

1) Comparisons Applicable to Both Languages

a) Reading (Reference Tables and Figures 2.1, 2.4, 2.7, 2.9, 2.12, 2.15)

The groups that started in the 9-contact-hour experimental sections established a general pattern of leading in reading over both the 4-contact-hour experimentals and the control groups. Of the 30 points of comparison the 9-hour starters lead at 17 versus 6 for the 4-hour and 7 for the controls. Seen by level, the 9-hour groups lead 66.7% of the time at the elementary, 60% at the second level and 37.5% at the third. If we are to consider the small numbers in the third level as reliable samples this would indicate that the specific effect on reading of the 9-hour start was operative principally in the first two years, and that its influence vanished in the third.

However, when we compare the controls with both types of experimentals, taking the latter as undifferentiated groups, we find the experimentals leading in 23 of the 30 points of comparison. By level, the experimentals lead 83.3% of the time at the elementary (where they had no specific instruction in the skill), 80% at the second, and 62.5% at the third. Thus although there is a decline in the advantageous effect of the audio-lingual start on the long-range reading skill, it is nevertheless present throughout.

Comparing the two types of experimentals with each other, ignoring the controls, we find the 9-hour starters (monitored lab) ahead in 22 of 30 instances. The distribution by level is 83.3% in the elementary, 80% in the second, and 50% in the third.

b) Listening (Reference Tables and Figures 2.2, 2.5, 2.8, 2.10, 2.13, 2.16).

The general pattern for the 9-contact hour starters to lead in listening is more pronounced than in the reading skill. In listening those groups are ahead in 22 of the 30 points of comparison versus 2 for the 4-contact-hour experimentals and 6 for the controls. By level the 9-hour group leads 83.3% of the time at the elementary, 70% at the second and 62.5% at the third.

When we make the comparisons regarding the experimentals as undifferentiated groups versus the control groups, the distribution by level shows the audio-lingual lead to be 91.7% at the elementary, 70% at the second and 75% at the third.

Comparing the two types of experimentals with each other, disregarding the controls, the monitored-lab starters are ahead 91.7% in the elementary, 90% in the second level and 71.7% in the third.

Seen from all three of the foregoing points of view we may conclude that in listening comprehension there is a positive continuing effect of advantages conferred by the nature of the elementary course, that the major advantage accrued to those who began in the 9-contact-hour experimentals, and that as between the audio-lingual sequence versus the controls, the disadvantage of the latter is clearly established.

c) Speaking (Reference Tables and Figures 2.3, 2.6, 2.11, 2.14)

The manner in which we recorded the scores of the speaking tests given from 1960 to 1963 unfortunately has not permitted a re-study by individuals, nor any extension beyond the terminal date of the contract. Nevertheless our anticipated conclusions are substantiated.

In both traces of both languages the experimentals are ahead of the controls at all times, and in general the significance of the gap increases with the passage of time. In the third level of each language those control-group students of the College of Arts and Sciences who elected to complete their requirement in the conversation-composition option (French 315-316, Spanish 301-302) rather than literature, tended to approach the level of the experimentals. This gain at the expense of the study of literature must be contrasted with the experimentals who devoted their entire third year to a literary program.

With respect to possible differences between the two types of beginning experimental courses, we can again point to a lead on the part of the monitored-lab students over the library-lab. Of the [illegible] of comparison among the [illegible] and in [illegible] of those 7 points, the persistence of the tendency in both languages in two separate groups of experimental subjects in each language adds weight to our findings.

4) Summary of Observations.

A three-year audio-lingual sequence of instruction, ending with a literature course taught in the language, is feasible on the college level and produces students whose skills are superior to those following an analogous traditional sequence. The superiority is probably minimal in the reading skill and decidedly superior in listening comprehension and speaking, as defined by the tests used in the experiment.

The nature of the elementary course would seem to have a very strong determining effect on subsequent performance in a three-year sequence. A group cannot be expected to overcome an initial handicap unless some components are sacrificed in favor of advances in one or two skills.

The advantage of the monitored-lab starters over those who had the same material in library-lab gains validity through the persistence of usually minor superiorities in all skills. The persistence is observed over the three year sequences of three successive starting groups.

[illegible] Observations pertinent to program

a) Reading Comprehension. 1960-61.

In considering the result of the CEEB Reading Comprehension Tests in French and Spanish at the end of the first semester it was important to note that no attempt had been made in any of the experimental sections to teach this skill, while the control sections in French 101 had used a reader. It was therefore particularly noteworthy that in both languages there was a superiority in this skill at the .01 level of significance in favor of the experimentals even when the results were adjusted to equate for differences in verbal aptitude.

French, second semester.

At the end of the second semester the CEEB Reading Comprehension test in French indicates that the trend observed at the end of the first semester continued, lending validity to the hypothesis that reading comprehension in French at the college level may be considered a transferred skill to which no specific attention need be devoted in the first year. Figure 1,1 places both experimental sections in homogeneous groups that include 102 and 201 where reading is taught. French 102 devoted 18 of 62 class and lab hours to reader based work and 201 had 13 out of 54. As all of the reading in these control sections was assigned for outside preparation the actual total time spent by the conscientious student might be triple the figures stated: 54 hours in 102 and 39 in 201. Equal or superior competence in the reading skill -- omitting other values that may have accrued in the controls from reader-based work -- was attained in the experimentals where no time was devoted to it, in or out of class.

Comparison of the two types of experimentals shows that whereas the difference at the end of the first semester between Section 61 and 62 was to the .05 level, by the end of the second the gap had widened to a point where the difference was significant at .005 in favor of the monitored section. No attempt is made in this report to ascribe causes to the relationship observed.

1961-62. Again the tests bear out our previous observation that reading may be regarded as a transferred skill on the elementary level (cf. 101-102, 105-106). There is no significant difference between the two types of experimental courses in this skill. This equivalent ability is maintained also in the second year (cf. French 201-202 and 205-206).

In subsequent years the superiority of audio-lingually trained students in reading comprehension is maintained

[illegible] Listening Comprehension

The test. Since the experiment was oriented toward audio-lingual skills the results of the listening tests and the oral production can be related more directly to the instruction than can the reading.

At the end of the first semester we noted a difference between the French experimentals and the directly comparable control, 101, at the .05 level of significance. Reference to Table 1.9 for the same comparison at the end of the second semester shows that the difference between the means has increased with considerably greater statistical significance associated with this difference. Also, there is no significant difference at the .05 level between the performance of the unmonitored experimental Section 62 and the control French 202 (see Figure 1.7).

It will be noted further that both experimental sections are within the same homogeneous group as 201, 202, and 316, the latter being a sixth semester conversation course. Finally, Section 61 falls within the same group as 201, 202, 316 (see above), and 302 of which at least two sections were taught exclusively in French. While the multiple-range test of Figure 1.7, being a more conservative test, did not detect a significant difference between 61 and 62, the specific t-test [illegible] difference [illegible] at the .05 level.

1961-62. Unlike the results of the first year, the 105 in 1961-62 was not better than the control. However, in May the superiority was established to the .025 level, or more pronounced than in 1960-61. There was no significant difference in this skill as between the two types of experimentals. The introduction of reading obviously had an effect on listening comprehension in 205, which was overcome in 206 (see Figures 1.9 and 1.10).

1962-63. The same superiority is maintained throughout the experiment and in subsequent years and the degree of superiority becomes more pronounced. The only course which challenges and surpasses the experimental second and third level is French 325-326.

d) Oral Production

Our reporting in this skill, which is in addition to the requirements of the contract, must still be regarded as tentative and of questionable validity as we are in the process of developing our own test (see Appendix IY).

1960-61. Although both experimental sections fall within a group including all but French 101 (see Figure 1.13), Table 1.37 shows that when the two experimentals are continued the [illegible] experimentals is superior to that of the controls, at the .005 level of significance. Furthermore this section fits into a group that includes the lowest, French 101. It should be noted that whereas no significant differences could be reported at the end of the first semester, at this time there are at least two of interest. This may be more a measure of test improvement than student achievement.

1961-62. The tests in this skill continue to be refined and the validity of the elements has been tested thoroughly by item counts, and the tests are approaching a state of reliability as an index to achievement in this skill. The results of these tests in their fourth version (May, 1962) are reported according to their component parts. Tables 1.39 and 1.40 show that in both languages there is a significant superiority of the experimentals at .005 level over the controls on both levels. Table 1.44 shows that in French marked superiority occurred in Part III (choice-question responses) in favor of the monitored 106-61 over the unmonitored.

1962-63. In this skill also the revised elementary control courses improved to the point of equalling or slightly surpassing the experimental sections. This phenomenon is true only on this level where the instructional techniques of the controls had been transformed. On the second-year and third-

[illegible]

tically to the .01 level of significance.

3) Observations Pertinent to the Spanish.

We made certain modifications from year to year in materials and presentation in the experimental sections, producing changes which may be perceptible in the vertical comparisons.

Alterations made in the handling of 105-62 (unmonitored) as of September, 1961 (see II A,1) may have caused the improved relative position in the speaking skill for the second group to enter that course (compare 2.11 with 2.14). Simultaneously however, this 1961 group of un-monitored starters lost the primacy held by those of 1960 in the reading (compare 2.9 with 2.12). Yet in the long run the 1961 group fared better in reading than did their counterparts of the previous year. In the listening skill also the second incarnation of 105-62 dropped temporarily as compared with the controls (compare 2.10 with 2.13), but again in the long run more than made up for the apparent early deficiency.

In the second level of the experimentals we changed totally the techniques, for the attainment of our unchanged objectives, as of the second offering of 205-206 (1962-62; see II.B). Although we are subjectively convinced that the [illegible] was a considerable improvement, [illegible] [illegible] of [illegible] into the literary [illegible], [illegible] to show an effect on the skills only with regard to the reading ability of those who had started in the un-monitored form of the elementary level (105-62). Figure 219 may show that the presentation of reading in 205 of 1961-62 was fatal to those who had started out so well in this skill the year before in the un-monitored section, although it had no adverse effect on the continuing students of the monitored beginning section. Whatever may have been all of the causes, the progress in reading through 205-206 of 1962-63 (see Figure 2.12) was satisfactory for all concerned. In the listening comprehension the relative degrees of achievement are satisfactory both in [illegible] and 1962-63 (see Figures 2.10 and 2.13); the dip in January, 1962, affected the controls more than the experimentals and [illegible] was probably due to listening conditions in the test administration). In the speaking tests (Figures 2.11 and 2.14) the [illegible] 205 are significantly superior to the controls both before and after the changes made in the experimental second level.

No important changes were made either in materials or techniques of the final experimental sequence of 1962-63, shown in 2.15 and 2.16. The startling changes of relative position of experimentals and controls are due in part to the [illegible] procedures [illegible] tionally established the procedures of presentation so that nearly anyone could teach the elementary level, we turned over all of the instruction in the 105-106 to rather inexperienced graduate assistants guided by weekly meetings with the project supervisor for Spanish. We were unable to find, [illegible] quence, however, rather than the story of an [illegible], we prefer to see as the successful transformation of the control courses the results of which are taken up in [illegible] IV B 2 b 2.

IV. B. 2. b. Application to the Control Courses of Techniques Developed in the Experiments.

From the initial conception of our experimental program we had naturally hoped that the whole approach, or any part of it that might prove successful and practical, would become normal teaching and testing procedure at Indiana. The realization of this hope, even before the end of the three-year experimental contract period, was gratifying on the one hand and on the other gave an unscientific [illegible] of our basis for judging achievement in the experimental work. In the following sections we attempt to relate results in the controls to changes made in the materials and presentation.

b) French.

Because of the lack of satisfactory audio-lingual books in French, no effort was made to introduce experimental techniques into the control sections until 1962-63, or the last year of the experimenting.

At that time, following the success in Spanish, we revised the French 105-106 syllabus to fit the normal curriculam. Class-time was reduced to three hours, two hours of supervised lab were required. No real distinction in teaching was allowed between class and lab. Students were encouraged to do their studying in the lab with tapes. By means of weekly oral quizzes the encouragement changed to students' realization that such study was a necessity. This arrangement is still in force through 1965.

As a result of the emphasis on audio-lingual approach, the second level of experimenatl techniques had to be continued for students who had taken Elementary French at Tulane. Those section 205-206 had to be segregated in material and approach from the 201-202 where the entering freshmen normally went.

Emphasis in 205-206 was in continuing the oral proficiency but concentrating on Reading Comprehension in the language and in writing.

201-202 students normally have had two years of traditional High School French. To bring them to the same point as the 206 students at the end of the year, intensive audio-lingual drill was necessary. A reference grammar was used to continue writing skills. The accompanying tapes were taught in lab. In addition the students were eventually required to marter the tapes of Desberg and Kenan's Modern French.

2) Spanish

a) The first, relatively slight, modifications of the Spanish elementary control, 101-102, came in the second semester of 1961-62 (see II.D.1.b.): no first-year reader was used, and portions of Modern Spanish tape drills were introduced in lab and class.

Comparison of the 101-102 results in Figures 2.9 and 2.12 seem to bear out again our experimental finding of 1960-61 that the use or absence of a reader in the first year has no effect on immediate or long-range achievement in that skill.

Introducing the more intensive tape drills might be expected to produce improvement that would narrow the gap between experimentals and controls in the listening and perhaps in the oral production, although by the second semester pronunciation habits would have been fairly well established.

Figures 2.10 and 2.1[illegible] show that in [illegible] the [illegible] the controls [illegible] well below the experimentals in May [illegible] passed the 105-62 in the year in question, 1962. Table [illegible] shows that in May, 1961, the experimentals led with a statisti-cal significance of .025 whereas in May of 1962 (Table [illegible]) the significance of the lead was at the vanishing point [illegible] Figures 2.11 and 2.1[illegible] and Tables [illegible] however show that the tape work brought the controls very close [illegible] experimentals in oral production quality.

b) Much more fundamental was the transformation [illegible] out in 1961-62 in the case of Spanish 103-104 (see [illegible]). In effect this control section was converted [illegible] [illegible]-contact-hour wholly audio-lingual course [illegible] of both types of our beginning experimentals. Reference [illegible] Figures 2.12 and 2.1[illegible] shows that the performance [illegible] of students of this section falls with almost incredible [illegible] sion between that of the two experimental patterns each of which had contributed to its conception and execution. [illegible] shows that in oral production the 103-104 [illegible] parent rather than a compromise course.

c) The success of 103-104 that we [illegible] May, 1962, gave us the courage to convert [illegible] completely [illegible] [illegible] the experimental pattern [illegible]

The degree to which we [illegible] is [illegible] and the results obtained can be seen in Figures 2.15 and 2.16. In short the "production model", the transformed controls, outstripped the prototypes. Although the prototype 106-61 seems to lead in May, 1963, in both reading and listening, Table 1.39 shows that for the first time in three years no significant difference exists at any point. The subsequent performance of the converted controls leaves no doubt as to their superiority.

In changing over all elementary Spanish to the formerly experimental audio-lingual pattern we felt obliged to follow through by channelling these students through the entire [illegible] time experimental sequence in the second and third years. This created two "tracks" on the upper levels: Tulane-Newcomb starters go to 205-206 and 305-306; students with high school preparation to 201-202 and then either to 301-302 (conversation and composition) or to 311-312 (survey of literature). Some students starting at Tulane-Newcomb in 1962 managed to switch tracks. Figures 2.15 and 2.16 show the sorry results in those cases. It should be noted, however, that the audio-lingual sequence has the reputation among students of being more demanding of time and effort on the upper levels than the parallel track. The relatively poor results of those who switch may therefore be due as much to agressively low motivation as to any other factor.

E. 3. M. L. A. (STARR PROFICIENCY TESTS)

Early in 1961 it was decided to administer the 1961 version of these tests to the Junior and Senior French and Spanish majors of 1960-61. Thereafter, timing became a disturbing factor both at Tulane and at the Educational Testing Service. By the date on which the tests were ultimately given, E. T. S. was able to supply only three of the seven tests in each language and we were able to administer them only to the Seniors.

The Seniors, whose scores are reported below, had no contact with the experimental teaching and the results of these tests will ultimately serve as part of a basis for comparison. As of this writing no interpretative information is available for these scores.

[illegible]

Student	Civ. & Culture JML 1	Reading JML 1	Listening JML 1
1. Bartley, Mary J.	24	27	17
2. Beckham, Sharon W.	30	27	12
3. Daly, Diana M.	29	24	20
4. D'Aquin, Marcelle L.	40	38	33
5. Gordon, Roberta I.	38	33	12
6. Harrar, Leslie A.	35	35	34
7. Hudson, Susan G.	16	15	4
8. Huff, Jane L.	40	36	29
9. Moor, Mary H.	21	27	18
10. Moyers, Sandra M.	27	26	11
11. Ringold, Jeannette K.	39	41	31

2. Spanish

Student	Civ. & Culture JML 1	Reading JML 1	Listening JML 1
1. Golladay, M. Elaine	51	32	24
2. Nazro, Virginia H.	47	25	27
3. Wendel, Emilie B.	45	19	11

MLA Foreign Language Proficiency Tests

for

Teachers and Advanced Students

FRENCH

This report is for the year 1964 since it is the only year in which the students language and college years fall within the three years of the experiment. These students entered as freshmen in 1960, the beginning year of the contract. They are compared to the Senior percentages and rated on the 1962 NDEA summer institute range. Scores are compared to graduating seniors on the scale of "Tentative Interpretative Data for Graduating Foreign Language Majors" May, 1964. The letter range is explained in "A Study of the Relationship between Scores on the MLA Foreign Language Proficiency Tests for Teachers and Advanced Students and Ratings of Teacher Competence", April, 1964. The first number is the raw score, then it is compared to the Senior Language Major percentage.

Name	List.Comp.	Speak.	Read.	Writ.	Appl.Ling.	Civ.&Cul.	Prof.Prep.	NDEA
Bullock*:	55-97	82-63	59-95	53-38	45-44	55-99	54-40	SGSGMGG
Clark*	53-95	82-63	58-94	48-78	41-23	46-67	60-67	SGSGMMM
Draisker*:	56-99	80-65	59-95	51-87	53-85	53-96	61-68	SGSGGGM
Dunlap	39-58	70-27	41-45	34-22	49-60	42-37	56-42	MMMMMMM
Griffin*	48-87	61-10	54-90	45-69	47-50	54-99	40-0	GMGGMGG
Gueringer	34-35	62-11	38-29	37-30	42-25	43-38	44-0	MMMMMMM
Hanckes	46-82	69-25	42-50	42-55	44-35	47-67	58-37	GMGMMMG
Headen	42-67	69-25	39-30	36-29	51-57	44-39	50-12	GMMMMMM
Honnell	42-67	79-64	46-70	43-59	47-50	41-27	60-67	GMGMMMM
Mario	47-85	59-10	60-97	47-75	46-49	46-56	54-37	GMSGMMM
Nice*:	53-95	85-80	60-97	52-87	61-99	55-99	65-72	SGSGGGG
Peissel	51-87	74-42	51-86	44-65	38-14	48-70	53-25	GMGMMGG
Rosenfeld	39-60	56-4	47-75	43-60	40-16	47-67	57-37	MMGMMMM

* Junior Year Abroad in Paris
: Began French [illegible] in September 1960

MLA Foreign Language Proficiency Tests

for

Teachers and Advanced Students

SPANISH

This report is for the year 1964 since it is the only year in which the students' language and college years fell within the three years of the experiment. These students entered as freshmen in 1960, the beginning year of the contract. They are compared to the Senior percentages and rated on the 1961 NDEA summer institute range. Scores are compared to graduating seniors on the scale of 'Tentative Interpretative Data for Graduating Foreign Language Majors' May, 1964. The letter range is explained in "A Study of the Relationship between Scores on the MLA Foreign Language Proficiency Tests for Teachers and Advanced Students and Ratings of Teacher Competence", April, 1964. The first number is the raw score, than it is compared to the Senior Language Major percentage.

Name	List. Comp.	Speak.	Read.	Writ.	Appl. Ling.	Civ. & Cul.	Prof. Prep	NDEA
Pickering	37-40	43-0	39-39	36-29	33-[illegible]	55-75	54-25	[illegible]
Beet	51-77	39-38	50-67	50-65	55-9[illegible]	56-77	62-67	[illegible]
Grasmantz*	55-99.5	101-98	62-99	62-95	51-86	66-99	57-40	GGGGGSM
Martin	45-85	90-91	44-65	40-37	34-17	59-83	44-0	[illegible]
[illegible]	45-55	31-65	43-53	46-53	39-75	71-99	51-10	[illegible]
Isaacs	44-80	33-73	53-95	43-59	49-73	56-77	59-45	[illegible]
Keating	52-19	93-93	49-85	53-7[illegible]	[illegible]-73	70-90	70-99†	[illegible]
Schwartzbek	45-55	69-27	44-65	44-59	[illegible]	55-75	53-20	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52-85	64-86	56-35	[illegible]
Holsinger*	53-79	73-96	64-91	[illegible]	57-59	69-90	51-20	[illegible]
Williamson	53-93	96-31	51-90	49-8[illegible]	55-93	59-93	67-35	[illegible]

*Junior Year Abroad in Madrid

†Began in Spanish 105, September, 1960.

IV. B. OTHER OBSERVATIONS.

1. Tests

If we were to select a single factor or technique as the keystone of an audio-lingual structure on the college level it would have to be the frequent recorded oral tests, weekly or at least every two weeks on the elementary level and a persistent continuation on all three levels. The college student is sufficiently mature, and sufficiently pressed for time and results in terms of grades, to calculate intelligently the most economical path to his objective. If he finds that grades and advancement can be attained by passive recognition skills (listening and reading comprehension) and the use of English he will certainly not master the far more arduous speaking and writing in the foreign language. If the more difficult path is the only one, most students will take it.

Admittedly the oral recorded tests are the most complex to prepare and administer, the most burdensome to score, and the most difficult to control in quality as between individual scorers. Yet given the present state of the average-to-superior college student s foreign language motivation, they are as indispensable as they are difficult for all concerned.

Although we have found such continual course tests both necessary and effective there remain at least two troublesome questions of a general nature beyond the technical ones already suggested. One has to do with the student's total control of a skill or item of subject matter. How much does the quality of an immediate oral response tell us about the full extent of mastery? Only a part, we are sure. But then is there a pragmatically reliable relationship between the part and the whole? We think so, but we are not sure. We have proved that the student in the audio-lingual sequence has a mastery equal and usually superior to his counterpart in the traditional program. The top audio-lingual student, however, will usually score not over 70 to 75% of possible on his instant-response oral tests, whereas his opposite number with time for reflection as he writes will score 90 to 100% in an objective item test. Obviously we are measuring the ability to respond rapidly as well as the extent of the grasp of content. Perhaps the amount of content that can be produced instantaneously is all that should interest the audio-lingual teacher, yet a doubt persists as to the full nature of the relationship of that measure to the degree of mastery that could be revealed without the extreme pressure of the oral test.

The other problem arises mainly in the post-experimental application of our findings. On the one hand it is the old question of defining the meaning of the grade of C; on the other, it [illegible] use the standards that would be applied in traditional testing. The special nature of the problem in the audio-lingual course comes from the current coexistence over the country of the two types of language learning. The typical college student in an audio-lingual course had probably already had, in high school, Latin or a modern language taught traditionally. If he is a low-average or below-average student he will let some or much of his daily language work slide and try to cram for tests. Cramming means mainly the book approach as the most efficient path to the minimum degree of mastery he is seeking. As a result our C and upper-D students show fair control of the basic elements of structure and intelligibility, but in overall quality they sound much like an orthography-oriented grammar-translation student. We have proved that we can push back the horizon of achievement for the motivated student, whether his motivation is ideal or practical. Can we do nothing for the rest?

2. Transference in the Reading Skill?

We have observed repeatedly that one of our most satisfying findings in an audio-lingual sequence aimed ultimately at the study of literature has been the students' proficiency in the reading skill even though we gave it no formal attention during the elementary year. We have spoken of transference in this connection. There is much reason to surmise, however, that this delightful phenomenon, certainly possible only in the Roman-alphabet languages, may be peculiar strictly to audio-lingual students of French and Spanish who begin in their upper teens, and may well be limited largely to the college level.

We have come to feel strongly that by the age of 18 or so, and particularly among those students who have entered college, the student is so properly and thoroughly book-oriented that a forced return to the solely aural-oral learning proper to earlier stages of his development produces a frightening sense of inappropriateness, dislocation, and perhaps insecurity. Therefore it may well be that the reading skill of these students is really in the nature of an increment "unearned" by the teacher and the program plan, but very deliberately acquired on his own by the student in an urgent reaction of self-defense.

3. The Teacher and the Machine.

It is a commonplace and true enough to say that a well-prepared tape can direct a student's oral drill for longer periods, more accurately, tirelessly, and economically than can a teacher attempting the same thing. We believe, however, that our experimentation has proved that for optimum results, and regardless of the amount of laboratory use, the presence and the quality of the teacher is not less but more critical in the audio-lingual program than in the traditional grammar-translation approach. Our statistical evidence is to be found in the general pattern of higher scoring by the monitored (1958-61) experimental subjects, and in the noteworthy decline of the experimental elementary sections of Spanish, 1962-63, when they were turned over entirely to fairly inexperienced teaching assistants.

It must, of course, be recognized that "optimum results" in terms of an audio-lingual program imply an effort to bring about much more sheer learning, and therefore teaching, quantitatively as well as in quality, than we used to think possible. The "near-native" goal, applied as a measure of achievement to all students, has replaced our former, more modest objectives. Once we remove that limitation we are forced to seek teachers whose ability is compatible with what we want the students to achieve. While it is true that the native voice on the tape can go far in compensating for the non-native teacher's almost inevitable shortcomings, it is also true that the ideal of the near-native objective introduces complexities into the art of foreign language teaching that require a far more highly evolved and competent performance than did our earlier, more simple life. The days when a good student with a good book could when necessary succeed in spite of his teacher are probably gone.

4. The Audio-Lingual Sequence and the Junior Year Abroad

In the early nineteen-fifties Newcomb College started a junior year abroad honors program designed to include only our own students and to work toward as much integration as possible with the foreign universities. Except for expanding to include the Tulane men as well as the women, and progressive tightening of eligibility requirements, the nature of the program and its objectives have remained the same.

Foreign language competence has naturally been a primary consideration from the start, an obligation that we first met by demanding at least two years of the language concerned in high school, followed by two more in college. The sophomore course in French and Spanish was an intensive concentration on skills needed for foreign study and, certainly at the outset, normally absent even in honors students.

The year 1962-63 was the junior year for the students who began French of Spanish in the first experimental sections of 1960-61, and a number of them qualified after only their two years in 105-106, 205-206. Other requirements for admission include an over-all B average during the Freshman and Sophomore years.

On a 4-point scale, the grade report average for the J.Y.A. students in France produced the following results. The whole group of 20 students averaged 3.39. The six experimental students averaged 3.40. The non-experimental 14 students averaged 3.[illegible]

The grade average range of the experimentals was from 3.09 to 3.66, and that of the others was from 2.25 to 3.81. The courses taken by both experimental and non-experimental students came from offerings of the Institut d'Ethnologie, the Faculté des Lettres et Sciences, the Institut Phonétique, the Institut de Psychologie, the Institut d'Etudes Politiques, the Ecole du Louvre, the Cours de Civilisation Française and two courses organized by Tulane University.

The single student from the Spanish sequence who spent 1962-63 at the University of Madrid did quite satisfactory work (2.92) but was overshadowed by the 4 others whose combined average was 3.43.

The following is a student's evaluation of his experience, written from Paris, March 7, 1963:

> I do feel obliged to comment on the aural-oral experiment. I believe it is an excellent method. Even if the vocabulary of those of us in the experimental group was at first somewhat smaller than those who are products of the normal method, our facility in speaking soon overcame this, and I feel that now we speak and read with the same fluency as any of the others (as proven not only in practice but also by the grade which we have made in our courses). However, more important I feel is that we are much more capable of learning by listening - which is invaluable - than are those who learned French initially by the standard methods. I find that myself in particular, and also all of us "experiments" are able to learn much more easily from listening to conversations in cafes, etc., than are the normally trained students. In any case, I'm quite pleased with the results in general.

APPENDIX I

TEACHING PERSONNEL, EXPERIMENTAL SECTIONS

I. 1960-61

A. French

1. The instructors of Section 61 were:

Mrs. Simonne Sanzenbach : native Frenchwoman, has license from the Sorbonne and certificate from the Institut des Sciences Politiques, working toward a Ph.D. at Tulane

Mr. Frances Lawrence : B.A., Washington University, Saint Louis, completed Ph.D. at Tulane in 1962

Mrs. Catherine Simpson : spent a year in France under a Fulbright Grant, M.A. University of Oklahoma, working toward a Ph.D. at Tulane

2. The instructor of Section 62 was Mr. W. S. Woods, Ph.D. North Carolina, professor of French and head of the Department of Romance Languages at Newcomb College. Professor Woods was also the supervisor of all French instruction in the experiment.

B. Spanish

2. In Spanish the instructors of Section 61 were:

Mrs. Ana Lamar Winkelmann: native Mexican, B.A., Newcomb College, completing M.A. degree at Tulane.

Mr. Thomas Montgomery : Ph.D., Wisconsin, then Assistant Professor of Spanish, Tulane University

Mr. W. J. Smither	: Ph.D., Tulane, then Associate Professor of Spanish and Acting Director of the Tulane Language Laboratory. Mr. Smither was also supervisor of all Spanish instruction in the experiment.

2. The instructor of Section 62 was Mr. George Wilkins, M.A., Stanford, Ph.D. at Tulane, May, 1961, and at that time Instructor in the College of Arts and Sciences. Mr. Wilkins was also the applied linguist for this project and is Assistant to the Director of the Tulane Language Laboratory.

C. The secretary of the project was Miss Ann Coco, B.A., Newcomb College, French major, who spent her junior year in France and has a fair knowledge of Spanish. In addition to her secretarial duties, Miss Coco also served as lab attendant and was available for consultation in cases of difficulty experienced by students working individually.

II. 1961-62.

A. French.

1. Section 61:

Mrs. Simonne Sanzenbach.

Mr. Haley F. Thomas	: A.B. Wofford College, M.A. University of South Carolina, working toward a Ph.D. at Tulane, considerable residence at study at Laval University and in France, also Director of Tulane Junior Year Abroad, thirteen years of teaching experience

Mr. Klaus Winkelmann : Native German with extended residence and study in Paris. A.B. from Tulane, working toward a Ph.D. at Tulane.

2. The instructor of French 105-106-62 was Miss Judith Cooper: A.B. from Newcomb College, M.A. from Columbia University, working toward a Ph.D. at Tulane. Spent her Junior Year in Paris with Tulane Junior Year Abroad.

3. French 205-206 was taught by Professor Woods.

B. Spanish

1. Section 61.

Mrs. Ana Lamar Winkelmann.

Mr. Thomas Montgomery.

Miss Lydia Dufour : B.A., Newcomb College (Junior Year and another post-graduate year in Spain), now completing M.A., Tulane.

2. The instructor of Section 62 was again Mr. George Wilkins, Ph.D., Tulane, having then become Instructor in Newcomb College. Mr. Wilkins continued as applied linguist for this project.

3. Spanish 205-206 was taught by Professor Smither.

C. The secretary of the project this year was Miss Emily Andry, B.A., Newcomb College, French major. In addition to her secretarial duties, Miss Andry also served as lab attendant and was available for consultation by students working individually. Other lab attendants were: Miss Joan Aldrich, undergraduate Spanish major, and Mr. Francis Lawrence, Ph.D. candidate in French.

III. 1962-1963.

A. French

1. Section 61.

Miss Linda Hornbeak : A.B. Newcomb College, a year of study at Laval University, a summer in Paris working toward Ph.D. at Tulane

Mr. Klaus Winkelmann.

Professor Woods.

2. Section 62

Miss Hornbeak.

3. French 205-206.

Professor Woods and Mrs. Sanzenbach.

4. French 305-306.

Professor Woods and Mrs. Sanzenbach.

B. Spanish

1. Section 61:

Mr. Atilano Gomez : Native of British Honduras, attended St. John's College there, B.S. Marquette University, working of Ph.D. at Tulane.

Mr. Rosendo R. Rivera : M.A. New Mexico State University, attended University of Connecticut, B.S. Northern Illinois State, working on Ph.D. at Tulane.

Mr. H. Ned Seelye : B.A. Brigham Young. Also attended Mexico City College and San Carlos University, Guatemala. Working on Ph.D. at Tulane.

2. The instructor of Section 62 was Miss Mercedes Libedinsky, native of Argentina, who entered the U.S. in 1961 and attended St. Lawrence University, Canton, N. Y. She was working toward the M.A. at Tulane.

3. Spanish 205-206 was taught in two sections:

   Mr. Smither

   Mr. Wilkins

4. Spanish 305-306:

   Mr. Smither.

C. The secretary of the project was Miss Anne Moughon, B.A., University of Tulsa, Ed.M., Harvard University, French major. In addition to her secretarial duties, Miss Moughon also served as lab attendant and was available for consultation by students working individually.

APPENDIX II

TESTS AND EXAMINATION

I. THE ORAL PRODUCTION TESTS;

A. Versions UOP-I, II, III.

The following detailed description of UOP-II also describes generally the pattern of versions I and III.

Part One. Discrimination of minimal differences in sound. The student was asked to indicate on an answer sheet whether the items in each of a series of pairs of French of Spanish words were the same of different. (Example: tales dales; deux-du; banc-bon; cara-seda.)

Part Two. Reading aloud. The student was given a carefully selected list of French- or Spanish-English cognates which he looked at for 20 seconds. At this point he was instructed to read the list into the microphone as he heard the number of each item. The purpose of this portion of the examination was to determine to what extent the student had learned the spelling of the target language in relation to its sound system, and the extent to which English orthography and phonology were influencing this correlation. In checking, only one sound from each word was considered.

Part Three. Discrimination - Production. The student heard three items, one of which was different from the other two. He was to repeat the item which differed.

[illegible]

[illegible] checking, only the intonation pattern was considered.

Part Five. Imitation. The student imitated a series of words in the target language. These works, selected for specific sounds which they contain, appeared previously in the cognate section. In checking, only a single sound from each item was considered, and the response was checked with the response of the same word as made from the visual stimulus of part two. The purpose of this portion was to correlate differences between a student's ability to imitate as compared with his ability to produce spontaneously any given sound. Grading. Some weeks prior to the administration of the UOP-II, all persons who were to be grading the student responses listened to the test, and were provided a check sheet for scoring purposes. A group of student responses from UOP-I were used to train the graders in listening for particular sounds, and discriminating between accurate and near-accurate responses. In the actual grading of the examinations, IBM score sheets were used by the graders, and the answer sheets were machine scored.

3. Version DOP-IV

Spanish

The Spanish DOP-IV test contained the [illegible] imitation sections of DOP-II and III, revised according to the item-analysis, plus two innovations: a phrase build-up section and a Choice-Question Response section. In the phrase build-up, the students were given two phrases, one building from back to front, the other from front to back:

a. enferma
se puso enferma
Marta se puso enferma, etc.

b. El Sr. López
El Sr. Roberto López
El Sr. Roberto López vive en aquella casa
etc.

In the Choice-Question Response, the students had to select either of two answers, responding with a complete utterance. The item selected was of no importance. Graders only checked underlined items as indicated in the examples:

a. ¿Te vas a las dos o a las tres?
Me voy a las dos. OR Me voy a las tres.

b. ¿Se levantan Uds. temprano o se quedan en la cama?
Nos levantamos temprano, OR Nos quedamos en la cama.

c. ¿Viste el perro o al Sr. López?
Vi el perro. OR Vi al Sr. López.

The DOP-IV was given to the experimental sections and to a sample population of the controls selected by the staff statistician. It was graded by Messrs. [illegible] [illegible] to ensure uniformity of judgment [illegible] [illegible]ing, and was scored electrically.

2. The French UOP-IV test contained the cognate-list and intonation imitation sections of UOP-II and III re-vised according to the item-analysis, plus two innovations: a phrase build-up section and a Choice-Question Response section. In the phrase build-up the students were given two phrases, one building from the back to front, the other from front to back:

a.	malade elle était malade Marie était malade, etc.	b.	M. Hulot M. Jean-Robert Hulot M. Jean-Robert Hulot demeure ici, etc.

In the Choice-Question Response, the students had to select either of two answers, responding with a complete utterance. The item selected was of no importance; graders only checked underlined items as indicated in the examples:

a. Etudiez-vous l'anglais ou le français?
J'étudie l'anglais OR J'étudie le français.

b. Qu'est-ce qui vous manque - des bananes ou des pommes?
Me manquent des bananes. OR Me manquent des pommes.

c. Les enfants se sont-ils lavé les mains ou les dents?
Ils se sont lavé les mains. OR Ils se sont lavé les dents.

The French UOP-IV was given to the experimental sections and to a sample population of the controls selected by the staff statistician. It was graded by Mr. Woods and Mrs. Sanzenbach to ensure uniformity of judgement in grading, and was scored electrically.[1]

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[1] See George W. Wilkins, Jr. and E. Lee Hoffman, "The Use of Cognates in Testing Pronunciation," *Language Learning*, XIV, No. 1, 39-43.

[illegible]

[illegible]

FRENCH 106-61
WEEK OF 2/26 TO 3/67

Mon 12:00	15 mins :	Live mem. C 1, Harris & Lévêque Intermediate, "ou allez-vous" to "un taxi". Read italics; do not memorize.
	5 mins :	Tape V-1, Band 1: cue tape of above
	30 mins :	Band 3; Ex. H complete, p. 3. Instructor use Additional Pattern Drill script as well as textbook. Warn students most of drill material not in book.
	Assign:	Read over Grammar Unit, pp. 5-9
Tues 9:00	15 mins :	Live mem. C 1, "Si ça ne vous fait" to "plus vite" p. 2
	10 mins :	Tape V-2, Band 1; cue tape from start. Record-playback.
	5 mins :	Band 2; Exs. C, D, pp. [illegible]4
	5 mins :	Band 3; Ex. E first as repetition then as anticipation
	15 mins :	Band 4; Exs. D, E, p. 9 (refer also to Add. Drills). Fill out time live with D, E, as in text.
Wed 10:00	15 mins :	Live mem. "Combien de temps" to end C 1
	10 mins :	Tape V-1, Band 1: cue tape complete. Record-playback.
	10 mins	Band 2; Ex. A, p. 7.
	15 mins	Band 3; Exs. A, B, C, pp. 8-9.
[illegible] 12:00	[illegible] mins	Live mem. C [illegible] start through "[illegible]" [illegible]. Read [illegible] do not mem[illegible]
	5 mins	Tape V-[illegible], Band 1: cue tape through above
	5 mins	Band [illegible]; Ex. F, pp. [illegible], first as repetition then as anticipation
	10 mins	Band [illegible]; Ex. [illegible], p. 10. [illegible]
	Assign:	Read through Chapter [illegible], pp. [illegible]

Thurs. 8:00	20 mins :	Live mem. C 3, "Attendez", p. 12, through "bien tranquille", p. 13.
	10 mins :	Tape V-5, Band 1: cue tape through above. Record-playback.
	15 mins :	Band 2: Ex. B as in *Add. Drills*; pp. 3, 4, 5.
	5 mins :	Band 3: Ex. B as in text, p. 14.
Thurs. 10:00	25 mins :	Live mem. C 3, "Depuis notre", p. 13 to end.
	15 mins :	Tape V-6, Band 1: cue tape of all. Record-playback.
	10 mins :	Band 2: Ex. A, p. 13-14.
Fri. 12:00	5 mins :	Tape V-7, Band 1: Ex. C, pp. 14-15.
	10 mins :	Band 2: Ex. D, p. 15. First repetition, then anticipation.
	10 mins :	Band 3: Ex. F as in *Add. Drills*, pp. 5-6.
	15 mins :	Band 4: Ex. F as in text, pp. 23-24
	10 mins :	Band 5: Ex. A, B, text, pp. 22-23.
Sat. 8:00	10 mins :	Tape V-8, Band 1: Ex. C, D, E, p. 23 text.
	10 mins :	Live review Ex. A, B, pp. 22-23.
	10 mins :	Band 2: Chapter 1 cue tape review.
	10 mins :	Band 3: Chapter 3 cue tape review.
	10 mins :	QUIZ on Chapters 1-4.
Sat. 10:00	To be spent on recording of *La Cantatrice Chauve*, and/or *Huis Clos*	

FRENCH 106-62

WEEK OF 5/7-11/62

Mon.	15 mins.:	QUIZ, Chapters XXV, XXVI.
	10 mins.:	Tape XIV-7, Band 1, reading of 1st letter, p. 167. Go over for comprehension
	15 mins.:	Band 2: 2nd letter, p. 168 and Band 3: 3rd letter, p. 168.
	10 mins.:	Band 4: Ex. A, pp 169-170.
	Assign:	Read pp. 172-175.
Wed.	20 mins.:	Tape XIV-8, Band 2: Ex. C, pp. 170-171.
	10 mins.:	Band 3: Ex. A, p. 175. Twice.
	10 mins.:	Tape XIV-9, Band 1: Ex. B, p. 175. Twice.
	10 mins.:	Band 2: Ex. C, p. 176. Twice.
Thurs.	10 mins.:	Tape XIV-9, Band 3: Ex. D, p. 176.
	15 mins.:	Band 4: Ex. E, pp. 176-177.
	20 mins.:	Tape XV-1, Band 1: reading of letter, pp. 178-179.
	10 mins.:	Band 2: Ex. A, p. 179.
	5 mins.:	Band 3: Ex. B, p. 180.
	Assign:	Read over pp. 182-187.
Fri.	15 mins.:	Tape XV-2, Band 1: Ex. C, p. 180.
	10 mins.:	Band 4: Ex. C, p. 188.
	10 mins.:	Band 5: Ex. D, p. 188.
	15 mins.:	Bands 2 and 3: Exs. A and B, pp. 187-188. As time permits.

SPANISH 106-61
WEEK OF 4/24-28/62

Tues, 12:00	10 mins.:	Live mem. Dialog, p. 382, *** to ***.
	5 mins.:	Tape 4, Band 1: dialog drill of above. Record-play.
	10 mins.:	Tape 4, Band 2: cue tape from start.
	6 mins.:	Tape 4, Band 3: drills 25-32, p. 388.
	19 mins.:	Tape 4, Band 4: Sect. 132 to "Examples", p. 391.
Wed, 8:00	10 mins.:	Live mem., p. 382, 2nd *** to "tipicos".
	10 mins.:	Tape 5, Band 1: dialog drill of above. Record-play.
	10 mins.:	Band 2: cue tape from start.
	20 mins.:	Band 3, radio material. Work for comprehension.
Wed. 10:00	10 mins.:	Live mem., p. 382, "los bailarines" to end
	10 mins.:	Tape 6, Band 1: dialog drill of above. Record-play
	10 mins.:	Band 2: word cue reinforced tape complete.
	5 mins.:	Band 3: word cue tape complete.
	15 mins.:	Band 4: radio material. Question-Answer session.
Thurs, 12:00	15 mins.:	Tape 7, Band 1: word cue reinforced.
	10 mins.:	Band 2: word cue tape.
	15 mins.:	Band 3: examples, p. 391 to Section end.
	10 mins.:	Band 4: Section 133.

Fri. 8:00	10 mins.:	Tape 8, Band 1: word cue reinforced.
	10 mins.:	Band 2: word cue tape
	10 mins.:	Band 3: combined Pattern Repl. Drill, pp. 393-394.
	10 mins.:	Band 4: Tense substitution review drill.
	10 mins.:	Live review, pp. 384-385, esp. drills AFJKS.
Fri. 1:00	10 mins.:	Live review, Section 130.
	5 mins.:	Live review, drills 1-8, p. 388.
	5 mins.:	Live review, drills A, B, C, p. 390.
	5 mins.:	Live review, drills A, D, F, G, pp. 391-392.
	10 mins.:	Tape 8, Band 1: word cue reinforced.
	15 mins.:	QUIZ, Unit 23.
Sat. 11:00	15 mins.:	Live mem. Dialog p. 399 to "americanas"
	10 mins.:	Unit 24, Tape 1, Band 1: dialog drill, Record-play.
	15 mins.:	Band 2, Section 134 through 1st item Substitution, p. 403.
	10 mins.:	Band 3: 2nd Item Sub., p. 403.

SPANISH 106-62
WEEK OF 4/24-28/62

Tues.	10 mins.:	Dialog cue tape drill.
	10 mins.:	No. 131 drills 25-32
	20 mins.:	No. 132, Trans. drills, pp. 391-392
Wed.	10 mins.:	Dialog cue tape drill, Unit 23.
	15 mins.:	QUIZ, Unit 23.
	15 mins.:	Dialog drill, Unit 24.
	10 mins.:	No. 134, Item Substitution drill, p. 40 .
Fri.	10 mins.:	Dialog drill.
	15 mins.:	No. 134, Item Substitution drill, p. 40 .
	10 mins.:	No. 135 complete.
	15 mins.:	No 137, Response drills, p. 408.

WEEK OF 4/30-5/5/62

Mon.	10 mins.:	Dialog drill.
	5 mins.:	No. 139 complete.
	10 mins.:	Combined Patt. Repl. drills, p. 412.
	15 mins.:	No 134, Item Sub drills, p. 403-404.
	10 mins.:	Construction substitution Review drill (, p. 413 to T, p. 414.

TAPE, UNIT 24

24-A: No. 136 complete (11:00)
No. 137, Trans. drills, p. 409, (6:20)
No. 138 complete (8:30)
No. 139 complete (4:40)
24-B: Constr. Sub. Rev. drill, p. 413, Nos. A-N.

APPENDIX IV

The following pages consist of sample weekly schedules for Spanish and French 101-102 (and the Newcomb equivalents 103-104). These are the courses, used as controls for the experimental work, which were radically changed as of 1962-63 in accordance with techniques developed in the experimentals during 1960-62.

The Roman numerals at the left denote the meeting of the class, the odd numbers I, III, V always refer to classroom sessions and correspond either to Monday, Wednesday, Friday or Tuesday, Thursday, Saturday. The even numbers, II and IV are always lab sessions and may be either Tuesday, Thursday or Wednesday, Friday.

[illegible]
WEEK IV [illegible]

I.	10 mins	Review dialog
	10 mins	Begin UNIT 4 dialog to first ***, p. 59
	20 mins.	Sect 15 complete, pp. 62-63 (14:50) (through Pers.-No. drill, about 15 mins.; Ch.-Quest. and trans. drills, about 5 mins. total)
	10 mins.	Review -ar verbs, "ser", estar", with some more drilling on Sect. 15 if possible.
II. (Lab)	10 mins.	Review UNIT 3 dialog (cue tape)
	10 mins.	CPRD, p. 56 (7:10)
	10 mins.	Review Sect. 13, p. 54 (9:00)
	5 mins.	Live review, Sect 14, p. 55
	15 mins.	QUIZ ON UNIT 3
III.	10 mins.	UNIT 4 dialog, from ***, top of page 59, to "Además, no es ninguna molestia."
	30 mins.	Sect 16 complete, pp. 63-65 (22:50) Ch.-Quest. drill, about 5 mins.)
		Try Ch.-Quest. drill individually
	10 mins.	Review Sect.15 and -ar verbs
IV. (Lab)	25 mins	Dialog from "Pues, muchas gracias", p. 59 to ***, top of P. 60 (dialog drill tape)
	10 mins	Cue tape, as far as ***, p. 60
	5 mins	Pronoun exercise, p. 61 (2:10)
	10 mins.	Sect 17 complete, p. 65 (4:10)
V.	15 mins	Dialog from "Hablando de fechas", p. 60 to "¿Usted sabe donde vivimos?"
	20 mins	Sect 18 through Const. subst. drill, pp. 66,67 (16:30)
	7 mins	Patt. Resp. p. 67 (2:20)
		Go over it a couple of times live
	8 mins	Trans drill, p. 67 (4:10)

Dual Channel tapes for individual study have:
Tape IV A: Dialog drill 4.
Cue tape 4.
Sect. 16 through Pers.-No., p. 64.
Tape IV B: Sect 18 through drill G., p. 68.

SPANISH 102-104
Week [illegible] Mar. 4-8, 1963

I.	10 mins.	Review dialog 14
	10 mins.	Sect.83, pp. 234-35; Trans.drill twice (4:30)
	10 mins.	Review Sects. 78 and 81 Trans. drills, pp. 229, 230, 234
	20 mins.	Sect.83 complete, pp. 235-37 Trans. drills p. 236 (5:20) Trans. drill p. 237 (4:00)
II.	10 mins.	Complete cue tape, dialog 14
	10 mins.	CPRD, p. 238 (9:30)
	5 mins.	Trans. rev. drill pp. 238-39 (3:50)
	10 mins.	Live review, drills A, C, G, K, p. 232; trans. drill p. 234.
	15 mins.	QUIZ ON UNIT 14. TO BE GRADED BY BOTH LAB AND CLASS INSTRUCTORS
III.	10 mins.	Begin Unit 15 dialog to "cuando regreso", p.243
	10 mins.	Writing exercises, p. 245.
	15 mins.	Sect.84 thru trans. drill p. 246 Item sub. drill(9:00) Trans. drill (3:00)
	10 mins.	Examples, p. 246 through top 247 Trans. drill top p. 247 (5:10) Trans. drill middle p. 247 (2:00)
	5 mins.	Intro. to sect.86, p.249 (will be completed in lab
IV.	15 mins.	Dialog from "Por fin llego", to first** p.244 (drill tape) Review beginning of dialog.
	20 mins.	Sect. 86 complete, pp. 249-250 Trans. drills A-E p. 249 (5:10) Trans. drill bottom p. 250 (2:30) Trans. drills F-F, p. 250 (7:00)
	10 mins.	Sect. 85 complete, p. 248 (6:10)
	5 mins.	Live review, Sect. 84; selections from Trans drills pp. 246-47.
V.	10 mins.	Dialog from "Sabe quien..." to "una gran muchacha," p. 244.
	10 mins.	Sect. 87 complete Pat. Resp. p. 251 (2:50) Trans. drill, p. 251 (2:10) Frame Sub. drill p. 252 (3:50)
	5 mins.	Discussion on word order. p. 252.
	20 mins.	Sect.88 complete, p. 253 (12:40)
	5 mins.	Sect. 89 complete, p. 254 (1:40)

FRENCH 101-103
Week 4: 10/1-6/62

1. Conversation 8   25 min. live memorization
Ex. IV
Ex. V
Ex. VI
Assign: Grammar Unit 4

2. (Lab)
Conversation 8   Ex. I
Ex. II
Ex. III   record-monitor-playback
Grammar Unit 4   Ex. I
Ex. II, a.b.

3. Grammar Unit 4   Ex. III
Ex. IV
Ex. VI
Conversation 9   30 min. live memorization

4. (Lab)
Conversation 9   Ex. I
Ex. II
Ex. III
Ex. IV
Ex. VI
Weekly quiz   Conversations 8,9, G.U. 3,4.
Assign: En France La cuisine française

5. Conversation 10   25 min. live memorization
Ex. III
En France La cuisine française
If time permits do supplementary exercises in French similar to ex. IV on page 55.
Use Mueller.
Assign: Grammar Unit 5 for 1 of week 5.

On student's tapes for individual work:
Conv. drills 8,9.
Cue tapes for conv. 8,9.
Ex. II, p.42; Ex. 4, p.43; Ex.II, p.48;
Ex. V, p.49.